



Education as Growth

**Its Significance for the Secondary
Schools of Ontario**

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FOREWORD

The object of this study is to present to Ontario readers the theory of Education as Growth, as formulated especially by Professor John Dewey of Columbia University; to examine the secondary school system of the province from the point of view of that theory; and to make suggestions as to desirable lines of advance.

The educational theory on which the thesis is built is here treated as an hypothesis. That is to say, it is assumed as the basis of argument, with no attempt in the argument to establish or defend it. Starting with this theory concerning certain phenomena of individual and social behavior, the writer seeks to follow out its practical implications with respect to the specific situation in Ontario secondary schools. From these findings certain conclusions are drawn.

The procedure outlined above is in accordance with the definition of theory given by Professor Edwin R. A. Seligman of Columbia University in his *Principles of Economics*—"a statement of the necessary relations between facts." That is to say, if a thing is good and true in theory, it is because it is good and true in practice. Therefore the validity of the concluding suggestions reached in this dissertation depends, first, upon the clarity and consistency with which the implications of the theory have here been developed, and, second, upon the truth of the underlying theory itself. Whether or not the suggestions will work out in Ontario must be shown, just as the theory itself must be demonstrated, viz., by actual trial.

The theory is first sketched merely in outline in order to bring out its characteristic features. The rest of the book is devoted to developing that outline in relation to a number of specific features of present school practice in Ontario. To attempt at one stroke a comprehensive presentation of the

theory of growth touching all problems, would, the writer believes, be opposed to the nature of the theory itself. For the theory takes shape in the situations in which it is applied.

Certain tendencies in line with education as growth are recognized as already at work in Ontario. Among them are the faith and hope in education voiced by a number of leading educationists in the province to-day. Among them, too, are some admirable features of a highly perfected educational system. Among them, further, are certain evidences of restlessness and dissatisfaction with things as they are. In all of those tendencies, the writer sees opportunities for Ontario to advance along the lines of education as growth.

Those lines of advance are summed up in a number of concrete proposals that call for definite administrative changes. Since, however, the study deals primarily with educational aims and values, all positive suggestions have been framed in broad terms of general policy. No attempt is made to enter into administrative details. The conclusions are in the nature of criteria rather than of a specific program.

To the administrator who looks for a definitely outlined plan of action incorporating the theory, this procedure will probably appear incomplete. He may feel left "in the air" as to just how these things are to be realized. The reply must be that his problem requires a quite different kind of study from the one here undertaken. It calls for the co-operation of specialists along many lines. It calls for practical investigation of varying conditions and for painstaking experimentation with different methods. It is, in short, a problem of administration, not of philosophy. The writer's problem is to examine the situation in the light of certain philosophic principles and to point out what they seem to imply with respect to desirable directions of change. This is offered in the hope that others may

accept those principles and implications, and may seek means to apply them in Ontario, in working toward the ideal of education as growth.

The writer wishes to acknowledge with sincere gratitude her wide obligations. Her deepest debt is to Professor William H. Kilpatrick, under whose guidance the work was done, and whose teaching was its chief inspiration. She is indebted also to Professor T. H. Briggs, Professor I. L. Kandel, Professor F. G. Bonser, Dr. Lois C. Mossman, and W. F. Dyde, for constructive criticisms and suggestions; to Dean Pakenham of the Ontario College of Education, for reading the descriptive chapter; to Dr. Merchant and Dr. Colquhoun of the Ontario Department of Education, for giving access to information; and to very many other friends whose advice, encouragement, and practical help made possible the carrying out of her undertaking. She wishes to thank especially her sister and brother-in-law, Mrs. and Mr. R. G. Dingman, who saw the manuscript through the press.

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Summary.

CHAPTER I

SOME EDUCATIONAL IDEALS IN ONTARIO

"There is a public demand that the purposes of the schools should be more clearly defined, and that these purposes should have a more direct bearing upon the character and organization of instruction," said Dr. F. W. Merchant, Superintendent of Education in Ontario, in an address to the Ontario Educational Association in 1920. [55, 1920, 480]¹.

What are the purposes of education in Ontario, and to what extent are those purposes practically related to the every-day work of the schools? Various replies are being offered to those queries. This is a period of unusually marked public consciousness of the problem of education. New objectives are being formulated, old terms reinterpreted. There is much discussion of the schools both from without and from within.

Certain outstanding emphases in aim are discernible: preparation for citizenship, development of character, vocational fitness, general education. But as the Superintendent of Education pointed out in the address quoted above, such general terms are too often lacking in the specific content that would make them useful for redirecting school procedure. We are apt to accept broad definitions of aim uncritically, without following out their practical implications.

The purpose of this study is to offer still another reply to the question of aims and purposes of education in Ontario. It presents education as growth, and attempts to point out the bearing of that conception upon actual practice in the secondary schools.

¹ The figures in brackets refer to the bibliography at the end of the book. In the case of books, the bibliography index number and the page reference are given; in annual reports, the index number, the year, and the page.

A number of statements by leaders in education in the province are quoted in this chapter, which indicate some of the demands being made on our schools to-day. They have been selected because, though differing one from the other in emphasis, they seem to agree in foreshadowing the basic theory upon which the argument of the book is built.

Education for Character.

The moral aspect of education has been emphasized in Ontario from the beginning. In his Report on a System of Public Elementary Instruction for Upper Canada, presented in 1846 on taking up the duties of Superintendent of Education, Egerton Ryerson, the founder of the Ontario educational system, defined his ideal thus: "By education I mean not the mere acquisition of certain arts, or of certain branches of knowledge, but that instruction and discipline which qualify and dispose the subjects of it for their appropriate duties and employments of life, as Christians, as persons of business, and also as members of the Civil Community in which they live." [8, 142]

In undertaking the task of character training, the state is serving its own best interests. Dr. Ryerson continued: "It may be advisable to show at the outset that the establishment of a thorough system of primary and industrial education, commensurate with the population of the country, as contemplated by the Government, and as is here proposed, is justified by considerations of economy as well as of patriotism and humanity."

Education for character is still urged as a national as well as an individual asset. "If education is the greatest and hardest task which it lies on each generation of society to fulfill, then too it is at the same time that generation's greatest asset, its most vital force in shaping national destiny and international relationship by the development of the

human spirit," is the expression of the National Council of Education.¹ [52]

The outstanding emphasis in respect to character-training to-day is a tendency to insist upon this category as supreme and all-inclusive. Whereas an earlier generation grouped moral training along with physical, mental, and religious, as parallel objectives, we hear now such assertions as that of Professor H. T. J. Coleman, (formerly) Dean of the Faculty of Education, Queen's University, speaking at a conference of the National Council of Education at Winnipeg in 1919:

"The moral purpose in education—call it the religious purpose if you will, and I will agree with you for I cannot keep the two apart, try as I may—the moral purpose includes all other purposes. It is not a part of education, it is the whole. It includes reading and spelling and arithmetic; history, literature, ethics and philosophy, the multiplication table and the tables of irregular verbs; the kings of England and Israel, as well as the Ten Commandments and the Sermon on the Mount. It is the universal aspect of every particular schoolroom activity. It is the petty and the trivial and the commonplace viewed from the standpoint of eternity—*Sub specie aeternitatis*, as the old philosophers used to say. Carlyle, you will remember, spoke of the dishonest workman who broke every line of the Decalogue with every stroke of his hammer, . . . The principle of moral purpose may be applied as a standard in all our educational controversies, national and local." [53]

Education for character, then, is the primary obligation of the state for its own safe-guarding.

¹ The National Council of Education was constituted at the National Conference on Education in Relation to Citizenship, held in Winnipeg, October, 1919. The Council is a lay organization aiming at the collection and distribution of educational information, with a view to co-ordinating the many educational efforts of the day around a unifying national ideal of education.

Put in other words, education for character is education for citizenship.

Education for Citizenship.

"It is obvious without argument that the purpose of the state school is to produce good citizens, for the simple reason that the primary object of the state is self-preservation. It is equally obvious that good citizenship can only be the result of the proper training and development of character," said Dr. John Waugh, Chief Inspector of Public Schools, in his President's Address to the Ontario Educational Association in 1922. [55, 1922, 6].

Dr. Waugh's reasoning suggests an expanding idea of what constitutes preparation for citizenship. The achievement of universal franchise naturally centred public attention upon a comprehension of the machinery of government as the principal factor in civic responsibility. For long enough the relation of the schools to citizenship was discussed from that limited viewpoint. That older idea may be illustrated by an address on "Our Educational System" given by Inspector J. H. Smith before the Hamilton Association in 1896, in which he laid down the principle "that every child has the right to an education such as will fit him for the duties of citizenship. This is a necessary complement of our system of responsible government, for if the people are to pass judgment upon the acts of their representatives in parliament, or take part in the government of the country through our municipal system, or assist in the administration of justice through our local courts, it follows that they must be educated sufficiently well to exercise the rights of franchise and discharge the duties of a citizen in an intelligent manner." [50, 119].

But education for citizenship is coming to be regarded as a much more complicated affair. An editorial in the *Ontario School Board Journal* of De-

cember, 1921, points out some further requirements: "Has it ever occurred to you to inquire how far the ability to read and write goes to fit one for the discharge of civic responsibilities? There have been men who could neither read nor write, but who had plenty of mother wit and solid judgment, and were as well qualified to vote as their grandchildren today, who read only the sporting news and take in the picture show. The ability to think is as important as the ability to read. In these days reading has become a substitute for thinking, and a great many people are not guilty of over indulgence even in the substitute. The boy who is not trained to think becomes the man who is easily brought under the spell of some partisan newspaper or religious fad."

We are coming to understand that practical morality is dependent upon a trained intelligence. "People are everywhere asking where the safety of the future lies, and the answer seems to be that it is in the mind and spirit," said Sir Robert Falconer, President of the University of Toronto, in an address to the Ontario Educational Association in 1921. "We are not looking to our natural resources as much as to our children to make the future of Canada all that it should be. If they can be qualified for a higher moral and intellectual standing, then the efforts of the present age will not have been wasted. The future rests not with the people whose minds are set upon material things, but with the people who are intelligent, for the welfare of a people depends not so much upon what they possess nor upon mere knowledge of facts, as upon the power to make the proper use of the brains that they have. It depends upon their ability to direct their energy into right channels, upon judgment, decision, right discernment, and it is all these things which must come from education imparted by well-educated men and women. The supreme gift that any individual can get from his education is wisdom, that wisdom which shows him how to judge rightly in difficult circumstances." [55, 1921, 125].

We have many reminders that knowledge must be bound up in attitudes, ideals, and habits of behaving. J. A. Houston, Senior Inspector of High Schools, in his report for 1920, said: "It is only repeating what every one will acknowledge to say that educating a child means giving such training as will fit him for future service and citizenship, and does not mean filling his mental pigeon-holes with unrelated, though possibly interesting, facts. The acquisition of knowledge or information is but a small part of one's education; it may enable a candidate to pass successfully an examination test, but it may not make him any stronger to face the problems which will meet him in everyday life. The best service teachers can render to their pupils and to the state is to train those pupils in thinking and acting for themselves, to encourage in them the spirit of investigation which exists in every normal mind, to impress on them that what is worth having is worth working for, and to make their attitude towards life one of self-reliance, not dependence on others." [66, 1920, 45].

"This is the service of the schools," said S. B. McCready, Organizer of the Ontario Junior Red Cross, in an article on "The Mission of the School—Training for Citizenship," in the *Canadian School Board Journal* of November, 1923. "Not good jobs, nor promotions, nor scholarships, nor examinations, but good citizenship. And not good citizenship when one reaches twenty-one or a mature age, but good citizenship now. And not good citizenship in theory, but good citizenship in practice. Making the work and the play and all the associations of the school serve the purpose of training boys and girls to be loyal, to be honest, to be kind, to be intelligent, to be industrious, to be thrifty, to be thankful. That is a good school that performs this service. That is a good teacher who gets such results. That is a good Board of Trustees that faithfully fulfils such a trust."

Education for citizenship, then, must take account of what has been called "the moral obligation

to be intelligent." Further, it must include not only knowledge of the good thing, but also practice in the good act.

Education for Vocational Efficiency.

Another marked emphasis in education in Ontario to-day is the stress upon vocational efficiency. The raising of the educational standard consequent upon the increasing complexity of social and industrial life has helped to sharpen up the long-standing popular demand for a closer connection between the work of the schools and the needs of practical life. Although this demand has affected the whole school system, bringing about numerous changes in curricula, methods, and equipment, yet the present movement for industrial and technical education in Ontario belongs chiefly to the field of secondary education.

Dr. John Seath, formerly Superintendent of Education and founder of the system of technical and industrial education in Ontario, in a report of a survey of education for industrial purposes, made throughout Great Britain, Europe, and the United States in 1910, connects vocational training with education for citizenship:

"Stimulated no doubt by the two conditions described above (increase in international rivalry for world markets, and the disappearance of the apprenticeship system), the modern educationalist has revised his definition of education. Formerly it embraced almost wholly cultural training. Now it embraces both cultural and vocational. He now holds that every citizen should be so trained as to be able to discharge his duty to himself and his family as well as to the state. Modern psychology has shown him that what best fits the child for his place in society best develops him morally, mentally, and physically." [60, 2].

"There are two main reasons for education of all kinds, and the first and most important is to fit

men and women to make a living; the second is to fit them to make good citizens," said Professor Leitch of the Ontario Agricultural College, to the Ontario Educational Association in 1923. [55, 1923, 483].

Vocational education is also recognized as a means by which the state serves its own best interests. The Report of the Royal Commission on University Finances, (1921), enumerating the sources of value that lie in education for "the healthy existence and continued progress of the State," says, with respect to training the individual as a worker: "Education, applied to industry, commerce and the development of the natural resources of the country, promotes industrial efficiency, commercial growth, and the increase of material wealth. In addition to the higher things of the mind and soul, there are material and measurable rewards of education. Among all the varieties of race, and amid varying conditions of climate, natural resources, geographical location, economic and social environment, in every case it can be demonstrated that an educated people produce much and amass wealth, while an uneducated people, under the same conditions, produce little and save less. Without educated brain and skilled hands, the fertile soil, the timbered land, water-powers and mineral deposits, must lie idle or be ignorantly squandered. National wealth and industry are directly related to education and must become more and more dependent upon it as civilization advances. The education of the individual is becoming an equally important factor in individual efficiency and success in the various departments of practical life. In a land of great natural resources like our own, education is indispensable to their proper conservation." [58].

Vocational education, then, is considered an essential part of education for character and citizenship.

A Two-Fold Objective.

Vocational education in Ontario is not a substitute for general education. Ontario stands strongly on guard against a narrow trade training such as has been developed in some of the older countries. An editorial on Vocational Education in the *Canadian School Board Journal* of December, 1923, illustrates this attitude: "The centre of interest in the field of education to-day is undoubtedly the subject of the relation between education and industry. The advocates of the educational traditions of the past need have no fear that this attempt to give education a more practical bearing on the needs of the times will necessitate the abandonment or even the neglect of the more cultural subjects. It simply means that the art of living and the conduct of business to-day require a transformation in our educational methods."

The two-fold objective of general and specialized education is repeatedly emphasized in all official discussions of vocational education. A clear statement of it is to be found in an address on Vocational Education by Dr. Merchant, (formerly) Director of Technical and Industrial Education for the province. Speaking at the annual convention of the Trustees' and Ratepayers' Association in 1922, Dr. Merchant said: "I trust that you will not go away with the idea that because the aim of the vocational schools is to give a practical education, the intention is to provide for a narrow system of training. The time was when a youth was expected to choose whether he would remain on the farm, go into an office or store, learn a trade, or obtain an education, when by education was meant an academic training in preparation for entrance to the university or professional schools.

"We have reached a stage when there is no longer such a choice, because a successful career in agriculture, industry, or commerce, demands an education. Our aim is to meet the needs of the times

and to provide secondary schools of varied types. But in all types of schools we are laying a great deal of stress on the essentials of a general education. In this respect our vocational schools differ somewhat materially from similar schools organized in other countries. Those entering our vocational courses from the elementary schools are obtaining in reality a fair general secondary education; the training given in English, mathematics, and science is the equivalent of that provided in any of our high schools. While less importance may be attached to the phases of mathematics and science that have a purely theoretical value, yet the courses include all that is essential to a complete understanding of principles and their applications. We have advisedly adopted this policy in framing our vocational courses, because a survey of the needs of industries has made it abundantly clear that the lack of a general education is as frequently the cause of the failure of a worker to secure advancement as the lack of specialized knowledge or skill.

“Furthermore, the importance of developing intelligent and worthy citizens should be as clearly recognized as the necessity for training efficient workers. We are insisting, therefore, that our vocational courses be planned on broad and liberal lines, and that methods of instruction be adapted to develop purpose, intelligence and initiative, as well as skill.” [55, 1922, 198].

As to what constitutes general education, there is a range of opinion. Definitions of it may be found resembling what Sir Michael Sadler in an article on “The Contrast Between German and American Ideals of Education,” characterized as “the ghost of general culture,—*i.e.*, the idea that there is a circle of varied knowledge which a youth ought to possess at the end of his secondary school life, and the possession of which marks off in social intercourse the ‘educated’ man from the ‘uneducated.’” [49, 438].

That conception is suggested in an article on "Modern Tendencies in Education," published in the *Ontario School Board Journal* of June, 1923. "If we are aiming at vocational efficiency alone, we are facing a very real danger. What is of prime importance is a cultural education whereby pupils shall receive a thorough grounding in literature, history, geography, and arithmetic. Among the pleasure-giving and uplifting things of life are good music, art, and poetry, and every child has the right to the fullest development of his capacity for these cultural subjects." Culture in this sense is clearly set over against vocational training as belonging in a separate medium, and well-rounded education is to be achieved by an addition of the two disparate factors.

In contrast to that position is the one taken by Dr. Merchant in his address to the Ontario Educational Association in 1920, in which he seems almost completely to eliminate the division between cultural and vocational training, and finds in each the fulfilment of the other. He says: "As I have pointed out on many occasions, I believe that no sharp line of distinction can be drawn between vocational and cultural education. True culture implies a motive in service. The ideal is not a liberal education for the enjoyment of a life of inaction and leisure, but rather the most liberal training for all forms of service. Now, while an individual may serve in a great variety of activities, his chief service must be directed through his vocation, and his education should accordingly follow the lines which will bring him into the most complete freedom for his work, giving him not only practical skill but, at the same time, helping him to understand and to view it in all its fullness of relationships—scientific, and mathematical, social and historical, aesthetic and ethical. Vocation, therefore, may become the centre of organization for the most liberal form of culture." [55, 1920, 483].

The proper relation between general education and vocational training is thus a significant problem in Ontario.

Education for Complete Living.

There is still another note concerning the aim of education, heard less frequently than either that of the obligations of citizenship or the necessity for industrial development. It is not concerned so much with the welfare and interests of the state as such, as with the individuals composing it. It is the theory that the function of education is to make life a full and joyous experience for everybody. "The business of the rural schools," said James M. Denyes, Public School Inspector, in the *Ontario School Board Journal* of January, 1923, "is to infuse the community life with the feeling of the worthwhileness of living. It should aim to bring within the reach of all everything that goes to enrich life mentally, socially, and above all morally and spiritually. These possibilities have never been realized because we have not put into it as much thought and as great an investment as we might. And the reason is not far to seek. People are always ready to invest in the thing which they believe will bring adequate returns for the investment. It is because we do not believe in the school as an ore-producer that we do not venture more in it."

This work of ministering to more abundant living, attributed by Mr. Denyes to the rural school, is claimed by others for all the schools. R. J. McKesock, President of the School Trustees' and Rate-payers' Association, writes in the *Ontario School Board Journal* of October, 1922: "There is yet in many places a lack of appreciation of the real value of education. True it has a money value, and the opportunity for individual success is certainly increased by education. It has also a commercial value, for with better educated people come better fitted homes, better social conditions, and a more progres-

sive people. But while in these ways education is a means to an end, it is an end in itself for it is the great part of that process whereby the child is trained not only to make a living but to live in the broadest sense of the word. Without the broadening and strengthening of the life of the individual through education, there can be neither community growth nor national uplift."

That the individual's development is to be found pre-eminently in the social relationships which education makes possible, is intimated by W. M. Morris, in his presidential address to the Convention of the Ontario School Trustees' Association in Toronto in 1920: "The really educated person should respond efficiently to every social situation in which he finds himself. He should realize the responsibilities of citizenship in the home, the community, and the State. He is not educated simply because he has absorbed a great amount of information. He is not educated simply because he has received industrial training that will enable him to make more money for himself and his employer. He should be educated for life. But we talk about life as if making a living were life, and the only people who were alive were the people who were making a living. The child is living, and he is living a life just as important to him and just as significant to society as yours and mine. We prepare for life by practising to live. The everyday business of teaching children to read and write and to add up columns of figures; the task of teaching them geography and history, literature and science, should all be held within the grasp of a definite moral purpose, namely, to teach them how to live." [55, 1920].

In the last analysis, then, the test of education is the measure in which it adds to the worth and satisfyingness of the lives of boys and girls.

Education for More Education.

Finally, it is claimed that the work of the schools is to start an educative process that will con-

tinue throughout life. Professor Dale, of the University of Toronto, expressed that ideal in an address to the Ontario Educational Association in 1923: "Perhaps the truest test of an education is to ask if it leads to self-education." [55, 1923, 414].

The conception of education as a continuing process is by means generally held, however, by pupils or teachers, as is intimated by Samuel Farmer, President of the South Ontario Educational Association, writing in the *Ontario School Board Journal* of March, 1922: "The present ambition of our students to 'get through school' would be praiseworthy if education were a complete task, to be accomplished in a given time. But education is a continuous process, and any idea that it can be completed is in itself wrong in principle. . . . If we could learn that education cannot be rushed, that there are no short cuts or royal roads to learning, we should cease to attempt the impossible, and should begin to cultivate the spirit of discovery rather than overload the memory. To a student so trained, education would not lose its zest. He would not want to drop his books as soon as he left school. In fact he would learn that at school he has but put something of the foundation upon which to rear his life structure."

Mr. Farmer's statement may be summed up in the familiar axiom:—"The aim of education is more education."

The Adolescent School Attendance Act.

Significant changes are being made in the school system in Ontario, one of the most outstanding of which is that introduced by the Adolescent School Attendance Act (1919). Comments upon the act and evaluations of its success offer further testimony as to educational ideals in the province.

For instance, the passing of the law raises the question of whether or not the education being provided is of such quality as to justify this lengthening of the school period. If it is not, merely to give

more of it cannot be considered satisfactory. J. H. Putman, Chief Inspector of Public Schools of Ottawa, in his report for 1920, asks: "How can the mass of these young people be held at school until they reach the age of sixteen years? Most certainly not by compulsion. Force as a power to change the spirits and fashion the wills of human beings was never more discredited throughout the world than it is at the beginning of 1921. The penal clauses of the Adolescent Attendance Act will prove of no avail unless an overwhelming public opinion approves of them. And public opinion will never approve of holding adolescents at school unless it can be shown that the school can do more toward preparing them for the duties of citizenship than the home, the shop, the office, or the factory."

R. A. Hutchinson, Inspector of Public Schools in Southern Ontario, discussing "Secondary Education for the Rural Districts," in the *Ontario School Board Journal* of February, 1922, writes:

"Suddenly and to the amazement of everyone, all the available secondary schools have been filled to overflowing with students. Every high school in the whole country has its full quota, and as a result, many of these urban school boards are being confronted with expensive building programmes. Apparently our whole people have come to realize that the successful man in any walk of life needs more than a public school education. The rural people, as never before, are awake to its advantages, and our legislators, feeling the same impulse, have enacted laws making it compulsory for every child to attend school until he is sixteen years of age. And so, just as suddenly, it is found that two essential things are lacking, viz., proper secondary school accommodation and proper courses of study for adolescents. . . . A new slogan has arisen with this 'new era.' Perhaps I should say an old slogan with a new meaning. It is this—'Equality for all, special privileges for none.' People are beginning to ask two questions, viz., 'Why should a boy living in a

town have a greater opportunity for a secondary education than a boy living in the country?" Second, 'Why should all secondary educational machinery be especially oiled for the boy who is looking forward to one of the learned professions as a career, while another boy who wants to attend high school so that he may become a better farmer or a better mechanic is debarred from doing so for want of proper schools and departments to do the work, even though he has not passed the 'Entrance' examination'"

Thus the act gives further recognition to what has always been a primary article of faith in Ontario, that every child is entitled to equality of educational opportunity with every other.

Summary.

Although other points of view could doubtless be found as to the aims and purposes of education in Ontario, those quoted above are, it is believed, representative of at least a section of progressive opinion in the province which points toward the theory herein presented. Their main features may be briefly rehearsed as follows:

The fundamental concern of the schools is to develop worthy character in their pupils. Training for citizenship or for vocational efficiency, both of which are essential for all boys and girls in our democratic society, are to be regarded as so many specialized phases of the all-inclusive moral aim. Education for character, for citizenship, for vocational efficiency, must be broadly related to all fields of human conduct. Individual development is dependent on social relationships. Education is for the sake of more abundant and satisfactory life. It can never be thought of as a finished product, but as a life-long process. It is the obligation of the state, whose well-being is conditional by the well-being of its members, to give equality of educational opportunity to all children.

This study accepts these basic generalizations. They serve, indeed, to point to and support the theme

of the book, that education and life, properly viewed are one and the same. Each at every stage should be a continuous process of fulfilling the preceding promise, and a continuous promise of a richer stage next ahead. This theory of the meaning and aim of education will be outlined in the following chapter.

The question of the extent to which the secondary schools of Ontario embody this conception will be subsequently discussed (Chapters IV to VII), by a detailed examination of the implications of the theory with regard to certain specific features of school practice.

CHAPTER II

EDUCATION AS GROWTH

The study of the curriculum in relation to the aims of education must deal on the one hand with social and ethical considerations, and on the other with psychological considerations. It is concerned with the social and ethical because, in judging desired educational outcomes, it moves in the realm of relationships and values. It is concerned with psychology because the means of attaining the outcomes desired must be understood and brought under control.

Great changes have taken place in philosophical and psychological thought in the period during which the Ontario educational system has been developing. Dr. Dewey, in the preface of his *Influence of Darwinism on Philosophy*, describes the modern intellectual revolution as follows:—

“Classic philosophies have to be revised because they must be squared up with the many social and intellectual tendencies that have revealed themselves since those philosophies matured. The conquest of the sciences by the experimental method of inquiry; the injection of evolutionary ideas into the study of life and society; the application of the historic method to religions and morals as well as to institutions; the creation of the science of ‘origins’ and of the cultural development of mankind—how can such intellectual changes occur and leave philosophy what it was and where it was? Nor can philosophy remain an indifferent spectator of the rise of what may be termed the new individualism in art and letters, with its naturalistic method applied in a religious, almost mystic spirit to what is primitive, obscure, varied, inchoate, and growing in nature and hu-

man character. The age of Darwin, Helmholtz, Pasteur, Ibsen, Maeterlinck, Rodin, and Henry James must feel some uneasiness until it has liquidated its philosophic inheritance in current intellectual coin."

Changing philosophical conceptions are expressed in changing educational theory, as Professor G. S. Brett, of the University of Toronto, remarked, in addressing the Ontario Educational Association in 1923 on "Freedom and Restraint in Education." "Educational theories in all ages . . . are found, in historical retrospect, to be the forms in which the general philosophy of the age is reduced to rules of action." [55, 1923, 430].

Some idea of the new approach in psychology may be intimated by a comparison of the Herbartian principles, which were written into our school system fifty years ago, with those of Professor Thorndike of Columbia University, who represents at least one line of advance in educational psychology to-day.

Herbart studied the way in which mind was built up by the association, reinforcement, and repression of concepts:—

"All investigations into the statics of the mind begin with two different quantitative factors, viz., the sum (or the aggregate amount) of the resistance and the ratio of their limitation. The former is the quantity which rises from their encounter, to be divided between the opposing concepts. If one knows how to state it, and knows also the ratio in which the different concepts yield in the encounter, then, by a simple calculation in proportion, the statical point of each concept—i.e., the degree of *its obscuration in equilibrium* may be found." [12, 11].

Thorndike studies total behavior, and its mechanism of neurone connections:—

"A man's nature and the changes that take place in it may be described in terms of the res-

ponse—of thought, feeling, action, and attitude—which he makes, and of the bonds by which these are connected with the situations which life offers. Any fact of intellect, character or skill means a tendency to respond in a certain way to a certain situation—involves a *situation* or state of affairs influencing the man, a *response* or state of affairs in the man, and a *connection* or bond whereby the latter is the result of the former.” [28, I, 1].

Herbart was mainly interested in the phenomenon of consciousness:—

“A concept is in consciousness in so far as it is not suppressed, but is in actual representation. When it arises out of a condition of complete suppression, it enters into consciousness. Here, then, it is on the threshold of consciousness. It is very important to determine by calculation the degree of strength which a concept must attain in order to be able to stand beside two or more stronger ones on the threshold of consciousness, so that, at the slightest yielding of the hindrance, it would begin to rise into consciousness.” [12, 13].

Thorndike treats consciousness as only one aspect of behavior, and one of lesser importance to the psychologist:—

“To define mental work as the work of producing states of consciousness is not useful. For in the first place the amount of consciousness produced is relatively insignificant in comparison with what particular sort of consciousness is produced and in what connection. Much intellectual or moral achievement may go with little consciousness, as in directing an army; and much consciousness, with little achievement, as in revery. In the second place the control of certain movements is as important a feature of intellect as the control of thoughts.” [28, III, 3].

Herbart, or more properly his followers who built up an elaborate educational theory upon his principles, centered attention upon the teacher's methods of pedagogy. The behaviorist psychologist to-day centres attention upon the learner's ways of reacting.

We live in a world that is unbelievably new. More than that, we know that we have to educate children to-day to meet a progressively changing environment.

"Education ought to be largely devoted to the issues upon which the young as they grow up should be in a position to form an intelligent opinion. They should understand that scientific advance has greatly altered, and promises still further to alter, our environment and our notions of ourselves and possibly the expediency of existing moral, social, and industrial standards. [23, 68].

The Unity and Continuity of Life.

If we look for an organizing principle by which to characterize the changed outlook, we may find one in a sense of the unity and continuity of things. We are being led to "see life whole." The world is being united by science. This simplification differs substantially from the gross non-differentiation of a pre-scientific age. It is the simplicity of re-synthesis and co-ordination. The facts that it reveals concerning the continuity of various kinds of behavior have obviously great significance for educational theory in both objectives and methods of teaching and learning.

For example, consider the continuity of different aspects of human personality. We tend less and less to use the familiar classifications of physical, mental, and moral with respect to conduct because we are coming to see the inherent relationships of the so-called various "sides" of life. Medical

science recognizes the connection between physical and mental health. Social science teaches that questions of morality must be treated with reference to physical and intellectual features of an individual's life. Psychology points out a fallacy in the traditional division between thought and action, and studies both as functions of the nervous system. Education must take account of this inherent unity of physical, mental and moral life.

Again, consider the continuity of organisms with their environment. Organisms act upon the environment and are acted upon by it. In the process of interaction, both agents undergo change. By means of these combined changes, the organism is able to maintain a state of comparative adjustment to its environment, which is essential to life. The most significant part of a human being's environment is the social medium. The individual's growing dependence upon society, and the growing interdependence of various social groups, marks advancing civilization. Thus, the predominant task of education is to teach people to live well with their fellows.

A further illustration of the continuity of life may be found in the way consciousness shades off imperceptibly from the focus of attention, through the margin of consciousness, into the sub-conscious. No line of demarcation can be drawn because the boundaries of the fields are forever shifting. So it follows that while we are attending purposefully to certain definite factors of immediate teaching or learning, very many attendant learnings are going on at the same time, perhaps unobserved, but closely and irrevocably knit into the fabric of behavior.

The Unified Self.

The most comprehensive illustration of the unity of life may be found in the category of experience. The continuity of present experience with the past and with the future, is what makes possible the

persistance of personality through constantly shifting events. More than that, out of the cumulative results of continuous experience, personality is built up and life is enriched. The work of education is to further that process of the enrichment of life.

We live fully and well when we find each succeeding day more satisfying because of the days that have gone before. When something previously learned is discovered to have a bearing on a present situation, familiar things take on fresh interests; we meet new problems with increasing success; we are able to direct the future along more desirable lines.

It is a truism that experience is the best teacher. We are apt to assume, therefore, that learning comes inevitably with the mere passing of the years. In a measure it is true that we are a part of all that we have met. We are like Whitman's child who "went forth every day" and found that all the objects he looked upon with emotion became part of him. But individuals differ widely, whether by native capacity or education, in their power to learn from experience. For some life ploughs only a sterile furrow of routine; to others the years bring a rich increase of wisdom. And experiences differ in the learning that they yield. Some are like little pools along a low river bank. They never reach the river, but are lost in the marshes. For a time they may be beautiful, but presently they grow stagnant and dry up.

The learning value of an experience is to be measured by the extent to which connections are made between it and previous experience, with promise of future helpfulness. When we are able, in the light of the past, to foresee the consequences of this or that line of procedure, then action becomes purposeful and mistakes are subject to checking up and correction.

This economy of life that involves the capitalizing of all the past to meet the continually new

demands of the present, is a function of what has been called the unified self. It marks personality at its highest potential. At every turn, whether the situation be one of sheer enjoyment, or of pain and effort, the unified self brings to it a maximum of resources. Abilities and values are organized to reinforce, instead of to oppose each other.

On the other hand, the man who acts now under the drive of one set of habits, now of an incompatible set, or whose values war with one another, is working in sharply delimited sections of his experience. In certain pathological cases of extreme demarcation, we meet the psychological phenomenon of multiple personality. Every-day cases of forgetfulness, when we didn't think, or thought too late, furnish minor instances of incomplete connectedness. Past experiences have not brought learning to the point of getting over into habit, or the connection has lapsed, with consequent inefficiency. Imperfect unification of the self is indicated also by half-hearted or reluctant effort, or by a burdensome sense of duty in one's work, as contrasted with the free yielding of one's complete energies to an all-absorbing purpose.

Such incidents interrupt the continuity of life. They hinder fullest living. We are less actually than we are potentially, for experience has failed to make its due contribution. On the other hand, when experience is constantly reconstructed, life undergoes progressive consummations. This is the way of growth. It brings the garnered fruition of the past to the enrichment of the present, and holds promise of a greater future.

The Way of Growth.

The school curriculum offers opportunity to direct the students' experience so as to bring about this process of progressive reconstruction and unification of life. The learnings sought will be those that will make for continuous growing. The

teacher's function is indispensable to guide students into the most fruitful kinds of experiences, and to give what help may best be given in interpreting those experiences so that the ends of growth may be realized.

When learning is accepted as the process of growth it is clear that the experiences of greatest learning value will be those which involve the most of "whole-hearted purposeful activity" on the part of the learner. We "throw the whole of ourselves" into an undertaking when we unreservedly purpose to accomplish it. We seek every possible means to our desired end. On the other hand, when our activities are controlled by purposes external to ourselves, which we do not altogether accept as our own, clearly only a part of our interest and effort is enlisted. We have a rebellious feeling that the thing is not, after all, absolutely essential, at any rate, not to us. We are driven back and forth between personal desire and the dictates of expediency. Any consciousness of being coerced indicates in so far a non-unified self. Therefore, education which is growth will produce individuals who are increasingly capable of discerning worthy purposes and increasingly disposed to pursue them. Sensitivity and disposition to worthy purposes are thus both ends of growth and means to further growing.

Learning that comes through the purposeful activity of the learner involves subject matter that is intrinsic to that activity. That is to say, the subject matter of learning is material from the reservoir of race experience, selected because of its importance to the learner's purpose.

Another line of growth may be indicated by an increased knowledge or skill, giving the learner more power to achieve his purposes. Again we may discern growth in increased capacities for enjoyment, in improvement in the quality of satisfaction sought, or in an added insight into the meaning of life. Or

again, man being the social creature that he is, his growth is realized and furthered by the broadening and refining of his social relationships.

Finally it must be emphasized that as life is its own end and excuse for being, so education which is growth is subordinate to nothing but the continued growing of the individual and the society of which he is a member. Life is a process, each stage of which has its own appropriate standards of value and its own intrinsic worth. As W. M. Morris reminded us, the child is living his child's life. The measure of its completeness at any stage is the measure of its preparation and promise for the next stage. "If youth be not golden, age will be but dross," said Jean Paul Richter. It is to the progressing values of youth, then, that adults must turn in order to estimate how far the schools are actually enriching the lives of young people so that their maturity and age will be a continuous process of fulfilling. This is the meaning and aim of education in the service of life that shall constantly be lived at its best.

Summary.

If then we take account of the unity of life and behavior, as that unity is made evident by the most recent findings of psychology and philosophy, and if we look upon education as a process of life and growth, we shall find that we are confronted with very wide issues.

We see every unit of learning involving physical and moral, as well as intellectual factors. We see an individual, not standing alone, but with his every movement touching his fellows, who stretch out as we look into wider and wider intersecting circles. We see the specific teachings to which we bend our energies woven into a complex web of learnings. We see the experience of every day and hour made what it is by previous experiences, and determining the nature of future ones. We see an individual in pro-

cess of growth, building up from the stuff of daily living his widening and deepening personality; or perhaps, in the complex circumstances of life, finding only elements that conflict, disorganize, disrupt, and impoverish him. We see the school as an opportunity so to direct and enrich the experience of boys and girls that their growth may be evinced in a steady increase in worthy purposes, in power to achieve and in capacity to enjoy, and in the social relations in which all individual purposing, achieving, and enjoying find their meaning. We see education, in short, as synonymous and synchronous with life itself.

This conception of education will be elaborated in greater detail in the following chapters, and its implications pointed out specifically with regard to a number of features of the Ontario secondary schools. The theory assumed necessitates looking beyond the immediate aspects of the various factors considered, as far as possible into their outreaching significance.

The intellectual revolution referred to at the beginning of this chapter has been in a measure reflected in educational practice in Ontario. Fifty years of development of the system have seen considerable progress in educational policy. In the last fifteen or twenty years, especially, marked changes have taken place. Some of these, doubtless, were mere perfecting of existing machinery. Others, such as the Vocational School Movement, and the Adolescent School Attendance Act, seem to indicate a fundamentally changed social outlook.

But progress has been gradual, a step at a time. There has been no comprehensive reordering of the secondary schools as a whole since the High Schools Act of 1871. [1, 150]. Consequently the system to-day incorporates various layers of psychological and philosophical thought, that contain inconsisten-

cies and incongruities. Any such lack of co-ordination must necessarily involve considerable waste. The following chapters attempt consistently to survey and evaluate certain present practices in Ontario secondary schools in the light of the psychological and philosophical principles of the theory of education as growth as above outlined.

CHAPTER III

THE SECONDARY SCHOOL SYSTEM OF ONTARIO

Before the theory of education as growth is discussed in relation to Ontario secondary schools, it may contribute to an understanding of the situation to describe the schools in brief outline. A comprehensive survey would involve many ramifications into administration beyond the scope of the present inquiry. This study will concentrate on certain features that seem to bear most directly on the aims and purposes of education.

I.—THE SYSTEM IN GENERAL.

Centralized Administration.

Education in Ontario is administered by a department of the provincial government, under the direction of a Cabinet Minister. The extent of centralization of the system is indicated in the following editorial of *The School* of April, 1923:—

“The division of authority between local boards and the Department follows clearly defined lines—to the former, general control of administration; to the latter, supervision and enforcement of school law. The Legislature has limited local control by assigning to the Minister the framing of courses of study, the training of teachers, the issue of professional certificates, the authorization of text-books, the distribution of Legislative money voted for education, and the inspection of public libraries. These powers are exercised after the consent of the Lieutenant-Governor-in-Council has been secured to each important step. In this way, the whole Cabinet shares in the decisions affecting educational policy.”

Definition of Secondary Schools.

There is no clear-cut line of demarcation between elementary and secondary education in Ontario. The two kinds of schools developed indepen-

dently. Only comparatively recently have they come to be treated as one continuous course, and the adjustment has not yet been completely effected. For the purpose of this study, secondary education is taken to mean that part of the government system that is beyond the public (elementary) schools, and below university grade. It concerns pupils approximately from twelve to eighteen years of age. Private schools will not be considered, because they largely resemble the public ones, and are influenced by many of the same conditions. It has been found advisable, too, to limit the discussion to full-time day schools, since night schools are in great part attended by adults, and form a kind of supplementary group, quite heterogeneous, and beyond the purpose of this enquiry. Part-time day courses are the same in kind as full-time ones, differing only in that they are organized to meet the convenience of employed boys and girls.

Status of Secondary Education.

The official status of secondary education in Ontario is defined by the *High Schools Act (1909)*, the *Continuation Schools Act (1909)*, and the *Vocational Schools Act (1921)*. All of these are permissive. They grant to municipal boards of education the right to establish schools, to provide for their maintenance, and to appoint and remove teachers. All schools are to be free to pupils residing in the municipality where the school is situated. [65, sec. 65; 74, sec. 15]. The *Adolescent School Attendance Act (1919)* requires every boy and girl between fourteen and eighteen years of age to attend school for the full time during which the schools of his municipality are open, except under special conditions. The pupil is exempt if he has passed the matriculation examination of an approved university, or has completed an equivalent course of study. Provision is also made for part-time attendance in cases where it can be shown that it is

necessary for the student to earn money. Part-time students are required to attend day school for 400 hours a year until they are sixteen years of age, and 320 hours a year from sixteen to eighteen years. Urban municipalities with a population of 5,000 or over are required to provide part-time courses of instruction. In the smaller municipalities, it is left to the discretion of the boards, but special provincial grants are given to those municipalities that undertake the work.

Thus Ontario has virtually made school attendance compulsory for most children to the end of the second year of high school, whereas formerly the completion of the public (elementary) school course marked the end of school days for a very large percentage.¹ The state has taken responsibility for a period generally acknowledged to be of consummate importance in an individual's development.

Dr. James C. Miller, then of the Department of Education, speaking before the Ontario Educational Association in 1920, described the change in the educational situation in Ontario precipitated by the passing of the Adolescent School Attendance Act as follows:—

“Heretofore our group of students has been somewhat highly selected through intellectual tests, vocational purposes, and, in a measure, through economic status. Our main objectives for them have been clearly defined—entrance to normal schools, the liberal arts colleges and professional schools. While continuing to render this service just as effectively as ever for this group, our institution is now called upon to provide a measure, and an increasing measure, of

¹ Attendance to sixteen years was put into force September 1, 1921. The Minister's Report for 1919 makes this statement: “The statistics available in the Department indicate that on the average about 87,200 pupils enter the elementary schools each year, and 14,656 the secondary schools. This would be about 16.8 per cent. of the elementary school attendance. In addition there should be kept in view the considerable number who take their secondary school education in private schools or colleges.”

training of a different type, to a much larger body of students who are to pass from us directly into the fields of employment where they will have to meet, not more student tests in higher schools, but the practical tests of everyday employment in their selected occupations." [55, 1920, 476].

Kinds of Secondary Schools.

The secondary schools of this province may be divided into two groups: first, the high school group, sometimes termed "academic," including high schools proper, collegiate institutes (high schools meeting certain advanced requirements in accommodation, equipment, and staff¹), and continuation schools (an extension of the public schools doing high school work); second, vocational schools, defined by the Vocational Schools Act as Homemaking and Art Schools and Departments, and Technical, Commercial and Agricultural High Schools and Departments. Homemaking and Art Schools and Departments admit students who hold fourth form elementary school standing, whereas for the other secondary schools, completion of the fourth form is required. Some schools in the academic group have courses in agriculture, household science, manual training, and commercial work. The distinction between academic and vocational, as applied to these courses, is based on the amount of time given in the curriculum to practical work, 50 per cent. during the first two years being required to classify a course as vocational. The two groups of schools are distinct in organization, and curriculum, and will be considered separately.

¹ A gymnasium valued at \$1,600, and teachers holding specialist certificates in classics, mathematics, moderns and history, science, art, physical culture, and, where these subjects are included in the curriculum, commercial subjects, manual training, household science, agriculture and horticulture.

Supply of Schools.

The academic schools greatly exceed the vocational schools in number of institutions, pupils, and amount of money invested. The following figures from the Minister's Report for 1921 [page 96] will show the relative standing of the two groups in these respects:—

	High Schools and C.I.	Continu- ation.	Total Academic.	Vocational day-time.
No. of schools	170	160	330	14
Pupils	41,040	7,505	48,545	7,522
No. of Teachers	1,302	286	1,588	212
Amount paid in sal- aries	2,531,060	406,162	2,937,222	625,849
Amount spen fort schools	4,790,211	649,474	5,439,685	1,585,086

II.—HIGH SCHOOLS.

Function.

The specific function of the academic, or high school, group of schools was defined by J. A. Houston, Senior Inspector of High Schools, in his report for 1920, in discussing anticipated changes in high school courses of study:—

“In this connection it must be remembered that our secondary schools have three duties to perform, and that they cannot get rid of any one of the three; they must (1) provide a broad general education for the average boy or girl, (2) prepare candidates for entrance into the universities, and (3) give the necessary academic training to those who purpose becoming public school teachers.” [66, 1920, 46].

These secondary schools are the lineal descendants of the District Grammar Schools, which were the first schools of Upper Canada to receive a government grant under the Public Schools Act of 1807. They were patterned originally on the classical traditions of English Public Schools, with the purpose of preparing the sons of the rich for the learned professions. Although their clientele and curriculum have been broadened greatly, the original ideal of preparation for the university has never been aban-

done. When the need arose for elementary school teachers, preparation for normal schools was added as an integral part of the work of the high schools.

In actual practice, preparation for entrance to universities and normal schools has heretofore usurped the field to the neglect of the third objective named above, viz., providing "a broad general education for the average boy or girl." Dr. Merchant made this statement in speaking to the Ontario Educational Association in 1920:—

"From the beginning the high school courses have been, in a large measure, determined by the entrance requirements of the universities and the professional schools. At times there has been a demand for a 'general course' freed from the restrictions of examinations; but the fact remains that when subjects have been added avowedly for the purposes of general education, in the end they have come to be included in some form or other in the examination list. I cannot think of a subject, unless it be physical training, that has not had such a history. Art, household science, agriculture, and even manual training, are now bonus subjects." [55, 1920, 482].

Few pupils completed four years of the high school without writing on one or other of those sets of entrance requirements. It might be said that ability to pass them had become the norm of the "general education" always stressed in Ontario.

A recent reconstruction of the high school curriculum was undertaken in part to correct this situation, and the resulting aims of the revised curriculum are described as follows in the departmental bulletin on Courses of Study and Examinations for High Schools (1922):—

"The High School course of study, detailed below, is designed to be a continuous and progressive course of five years. It comprehends a Lower School course of two years, followed by a Middle School course of two years, and an Upper School course of one year. From the Syllabus prescribed may be planned suitable courses for the needs of those pupils who desire to be admitted to the Normal Schools or to the Universities, or of those who wish to prepare for a business career, or of those who, not having such courses in view, desire merely to secure a general education."

The function of the high schools, then, has been in the past mainly propaedeutic; and, while this function continues, there is an effort to make them of more immediate value as well. Their curriculum is literary and scientific. A few schools have courses in manual training, household science, and agriculture.¹ But the departments belonging to all, comprising the "common culture," and meeting the examination requirements, are: classical languages, modern languages, English, history, mathematics, and science.

The Examination System.

The system of uniform examinations, involving a uniform curriculum and uniform text-books, is one of the most characteristic features of the Ontario high schools. Although the revised curriculum aims to enlarge the scope of the schools beyond mere preparation for university and normal school entrance requirements, yet the examination system adapted to those requirements has been in no degree abandoned. If anything, it has been more highly perfected. In place of former Matriculation, Normal School Entrance, and Faculty of Education Entrance Examinations, there is now one single set of tests conducted by the Department of Education, which meet all entrance requirements to Universities, Colleges, and professional schools. They constitute the prescribed standards of accrediting for every high school course. Their organization follows the organization of the school in Lower, Middle, and Upper School examinations. The departmental examinations are conducted by a joint committee appointed by the Department of Education and the University Matriculation Board, which represents the four Universities of the province. The joint committee, subject to the approval of the Minister of Education and

¹ Manual training in 25 schools; household science, 28; agriculture, 26. Minister's Report, 1922.

the Matriculation Board, selects a Board of supervisory examiners, examiners-in-chief to prepare the question papers, and associate examiners to assist the examiners-in-chief in reading and evaluating candidates' answers.

Examinations are held at local centres throughout the province, usually in collegiate institutes, and high and continuation schools. The answer papers are forwarded to the Department to be read and evaluated. The Department bears the expenses and collects fees from candidates, which partly defray the cost.

Great pains are taken that the evaluation of answer papers shall be uniform and according to an equitable standard. When a candidate falls just below the 50 per cent. pass mark, his paper is re-read, and reference is also made to the teachers' reports showing his school standing in the subject.

The examination system is strongly entrenched in popular approval in Ontario. Lacking any other recognized standard for measuring the results of teaching, the public tend to judge both teachers' and pupils' ability in terms of the pupils' examination proficiency. "On the results of these examinations, school boards and the general public appraise the teacher's competency and upon such appraisal depend his promotion and salary," wrote Dr. Seath in his report of 1911. [60, 264]. The certificates issued by the Department showing the necessary credits obtained on the departmental examinations admit a pupil to university or normal school. Moreover, business firms and others interested in employing pupils tend to depend upon this source of recommendation. One of the purposes of the Curriculum Revision Committee in instituting the High School Graduation diploma was, according to their Interim Report, to make the method of qualification by examination certificate better adapted to general purposes.

“At present, from lack of anything more suitable, the Junior Matriculation examination (designed to serve a quite different purpose) has come to be treated very generally as a test of education fitness for all kinds of positions. The result is that many pupils are pursuing what is for them an unsuitable course of study, and the Universities are criticized because it is unsuitable. There would seem to be need of a High School Graduation Diploma that would have a recognized value in every part of the Province, and at the same time, would be given under such conditions as would induce a much larger number of general-course pupils to continue their studies.” [71, 5].

The examination system, then, has a prominent place in the high schools and demands careful consideration of its contribution to the desired outcomes of education in Ontario.

The Curriculum.

Uniform examinations necessitate a uniform curriculum throughout the schools. Prescription of courses by the central authority has been a feature in Ontario from the creation of the Council of Public Instruction in 1850, before the examination system was instituted. The uniform examinations, however, have the effect of making conformity in the matter of studies more important than ever. Since 1855 there has been a centrally controlled inspectorate to ensure the carrying out of this regulation and others.

The Department of Education, through a committee made up of representatives of the Department, the universities, and the secondary schools, defines the subjects of study for each division of the high schools. All students are required to take certain subjects, and consequently all school boards are required to provide for their being taught. A number of other optional subjects are suggested. These are at the discretion of the boards to supply, upon recommendation of the principals. The minimum and maximum number of subjects to be taken by a student each year is prescribed by the Department.

The obligatory and optional subjects listed in the Regulations cover the requirements for the vari-

ous courses; viz., entrance to universities and normal schools, the commercial course, the general course leading to the graduation diploma. Thus, most of the so-called optional subjects are obligatory with respect to the various courses. A limited number of options is allowed in every course, the general course being the most liberal in that respect. Technically, a school is not obliged to provide courses meeting university and normal school requirements, but practically the demands of those institutions constitute obligation in the matter.

School boards are permitted, with the approval of the Minister, to add to the list of optional subjects suggested in the Regulations, such others as may, in their opinion, serve the needs of their particular locality. [67, Sec. 5:3]. The content of these courses is not dealt with in the Regulations and no text-books are prescribed in connection with them. No provision is made for departmental examinations in such subjects.

Except for variations in English and foreign language texts, the courses of study are little changed from year to year. Occasionally subjects are added to meet new demands, or deleted to lessen the burden of overcrowding. But there have been no comprehensive changes in the character of the curriculum since 1883, when the school system reached essentially its present form. [1, 149]. The recent revision completed in 1922 was largely concerned with the order and grouping of subjects of study and examinations, rather than with the nature or content of subject matter.

The High School Inspectors, in their report for 1922, made the following favorable comment, however, on the revision of the curriculum:

“Had it done no more than to relieve the overpressure which had become so burdensome under the former scheme, it would have served a useful purpose. But it has done much more. By limiting the number of subjects to be taken by each pupil, it has provided more time for the thorough mastery of what is attempted, more opportunity for the proper assimilation of knowledge and for growth in intellectual power. By

the introduction of new subjects each year, it makes a constant appeal to the pupils' interest. Moreover, it has greatly lessened the burden of examinations, not by lessening their number, but by distributing the papers over the four years, so that in no one year is the examination strain oppressive." [66, 1922, 35].

Text-books.

Text-books are authorized by the Department for a period of years. During that time, certain publishing firms hold a contract with the Government under which they produce the books at stated low prices. At the end of the specified period, another edition or a new book is authorized. Section 52 of the High Schools Act reads:

"A teacher shall not use or permit to be used as a text-book in a High School any book except such as is authorized by the Regulations, and the Minister, upon the report of the Inspector, may withhold the whole or any part of the Legislative grant in respect of any High School in which any unauthorized book is so used."

A penalty is attached (Section 57) to infringement of this regulation:

"If a teacher negligently or wilfully permits an unauthorized book to be used as a text-book by the pupils of his school, the Minister, on the report of the Inspector, may suspend such teacher and the board may also deduct from his salary a sum equal to so much of the legislative grant as has been withheld on account of such use or any less sum at its discretion."

This prohibition is further emphasized by the following note in the Regulations concerning text-books:

"The teacher himself may use any book, pamphlet, or magazine he wishes in preparing the lesson for his class; but he has no authority to require or permit his pupils to use in school any other publications than those whose use is authorized by this Circular, or which are listed in the catalogue of the school library with the approval of the Inspector. Nor can notes on History, Geography, etc., School Helps, School and Home, or similar publications, be used by his pupils in their work at school; and neither the teacher nor the Board has any authority to require pupils to buy any such prohibited books, pamphlets, magazines, notes, School Helps, School and Home, or other similar publications." [70, 9].

Apart from the exigencies of the examination requirements, the reasons given for the system of prescribed texts, according to John Miller, Deputy Minister of Education (1893), in *The Education System of Ontario*, are: that it makes possible very cheap school-books; that it minimizes the difficulties attendant upon a pupil's changing schools; and that "it has, by limiting their responsibilities, tended to render teachers, Inspectors, and other school officials more useful in the discharge of their duties." [18, 84].

III.—VOCATIONAL SCHOOLS.

Development of the Movement.

The growth of Technical and Industrial Education in Ontario dates from the report of Dr. Seath, Superintendent of Education, of his survey of Education for Industrial Purposes, carried on in Great Britain, Europe, the United States, and Ontario in 1911. That report was followed by the passing of the Industrial Education Act of 1911, providing for the establishment of vocational schools. Prior to that date, there were only two schools in Ontario—Toronto and Hamilton Technical Schools—where such work was being done.

Publication consciousness of the need of more "practical" education is shown by the appointment of the Dominion of Canada Royal Commission on Industrial Training and Technical Education in 1913. The commission found in several quarters, it is true, a certain mistrust of any departure from the established educational tradition. "There seems to be unfortunately an indifference, if not an antipathy, to any form of instruction which is calculated to fit directly for work in the shop or at the bench," said A. H. Leake, Inspector of Manual Training and Household Science in Ontario, in giving evidence before the commission. [57, IV, 2012]. But the consensus of opinion favored vocational education. Dr. W. S. Ellis, (then) Dean of the Faculty of Education, Queen's University, recom-

mended the establishment of technical schools "organized, equipped, and staffed" with reference to the special needs of changed social conditions. He said:

"A new kind of school is wanted, with different aims, different processes of training, and a different type of man to guide it, who shall have an entirely different outlook upon life and industry and human work. . . . The new type of school will make industry the key of its training, the capacity to take effective and intelligent part in turning the raw materials of the country into products in commercial demand will be largely its aim, and the desire to put honest, personal effort into work undertaken will be seriously cultivated.

"This is not the point of view of the present school at all; and the men who are generally giving excellent service in conducting these schools have been trained under such circumstances that they cannot adapt themselves to grapple with the needs of industrial training as the problem presents itself. They do not know these problems, hence they can have no vital concern in solving them. . . .

"Such circumstances lead me to hold that any system of technical training should be established in schools organized, equipped and staffed for that purpose. The curriculum and appliances should be provided solely for the end to be attained. The course of study and equipment of the ordinary school do not lend themselves to this purpose, and even if they did or if they were supplied specially, there is still the most important matter, the directing mind, which has been trained along the lines of the old education, and mainly engaged in managing schools of a literary and cultural character, while the technical division would be only a department annexed and hence made subservient to the needs of the main institution.

"I hold it to be vitally essential that such schools should be in charge not of department masters of larger institutions, but of principals—each closely connected with the industrial life of his community—capable of discussing the problems arising out of these operations, and assisting in their solution." [57, IV, 2025].

Whether or not the argument represented in this testimony was considered seriously by those responsible for the vocational education movement in Ontario, at any rate the policy of administration advocated was actually followed. The early beginnings of vocational education already found in a few vocational departments in high schools were

now supplemented by vocational schools. The new schools were from the start kept separate from the academic institutions. The separation has been more highly perfected by the Vocational Schools Act of 1921.

During the comparatively brief period since that time, the movement has grown rapidly. The Minister's report for 1922 lists 14 day schools in operation, and the Director of Industrial and Technical Education reports 11 others at various stages of preparation, not included in the list. This development would seem to indicate that the policy controlling the schools has been such as to replace popular misgivings by confidence in the movement.

In 1921, the Vocational Schools Act, superseding the Industrial Education Act of 1911, instituted a further development of the system by bringing commercial and agricultural courses under unified control with industrial, technical, art, and home-making schools and departments.

Administration of Vocational Schools.

The responsibility for initiating a vocational school rests with the High School Board of a municipality. But once the first step has been taken of decision to open such a school, the work is put under a special Advisory Committee, appointed by the Board, half of the members of which are members of the Board and half representatives, both employers and employees, of the trades or industries carried on in the local community. Provision is made also for a co-ordinating officer to bring together the local industries and the schools. The Advisory Committees have authority, subject to the approval of the Minister and the Board, not only to provide site and equipment, but also to prescribe courses of study and examination, and to furnish diplomas. Courses of study are determined by the aid of a survey of the locality with regard to trades and industries, to determine what kind of instruction will best meet the

needs of the community. Text-books for the general subjects are prescribed by the Department, but for the vocational subjects are chosen by the principal.

Thus, the vocational schools are much less highly centralized than the high schools. They exercise a greater measure of local control, for each industrial centre is a local unit for purposes of organization. The schools throughout the province, are, however, in charge of a Director of Technical and Industrial Education, appointed by the Department to help the localities with their plans and the execution of them.

Types of Vocational Schools.

The following description is from the Regulations for Vocational Schools (sections 2-7) :

“The Industrial Schools and Departments are designed to give boys and girls looking forward to employment a thorough training in the essentials of a general education and at the same time to furnish a special training in the subjects and operations which are fundamental to the trades and industries in which they expect to become employed.

“The Home-making Schools and Departments are planned to provide for girls a substantial extension of their training in the essentials of a general education and at the same time a special training in the subjects and processes which will lead to efficiency in home activities.

“The Art Schools and Departments are planned to provide the training needed by those who are preparing to follow either the fine or applied arts as their vocation. Special courses may be offered also for those who are taking other vocational courses or are engaged in other pursuits.

“The Technical High Schools and Departments are planned to meet the needs of those who are looking forward to occupying junior executive and technical positions in the trades and industries or to proceeding to higher institutions for advanced training in technical and engineering lines.

“The Commercial High Schools and Departments are planned to meet the needs of boys and girls looking forward to employment in commercial occupations. The courses of instruction provide for a good general education and for a special training in the subjects related to commercial pursuits.

“The Agricultural High Schools and Departments are planned to meet the needs of the boys and girls who expect to be occupied in farming, dairying, stock-raising, fruit-

growing, or gardening. The courses of instruction provide for a good general education and for special instruction in the subjects, processes, and operations which are fundamental to these occupations."

Composite Schools.

A vocational school and a high school may be housed in one building and directed by one principal. But the two organizations must be kept separate. This is made clear in Regulation 44, which reads:

"Where a vocational department is established in a continuation or high school or collegiate institute, the instruction in the department, both academic and vocational, shall be as far as possible given by teachers employed for full-time duty in the vocational department. Where it is necessary, owing to the nature of the subject, to obtain the part-time services of teachers from the staff of the continuation, high school, collegiate institute, or other school, or from the trades or industries, such teachers shall be selected and appointed on the report of the Advisory Committee concerned. The salary to be paid by the Principal of a school of this type for his services in the vocational department and the salaries to be paid the teachers, both full-time and part-time, shall be determined by the Advisory Committee concerned and shall be paid by separate cheques (i.e., not included with the pay for other services)."

A number of these composite schools have recently been built in Ontario. The plan is found to have certain advantages of economy for smaller centres, since it saves duplication of gymnasium, auditorium, library and similar accommodation, which may be used in common by both sets of pupils.

Two-fold Purpose of Vocational Schools.

All official statements are strongly insistent that the ideal of "general" education has never been lost sight of for an instant in the organization of the vocational schools. The two-fold purpose is continually emphasized, as in the Regulations (section 8) :

"The importance of developing well-informed and intelligent citizens should be recognized as clearly as the necessity for training efficient workers. It is to be remembered also that instructed intelligence is a most important factor in vocational efficiency."

"The Ontario type of day industrial and technical schools has certain distinctive features which mark it out, on the one hand, from similar types of schools organized in other countries, and, on the other, from other types of schools within the Province," wrote Dr. Merchant in his report for 1918. "The chief feature which distinguishes it from schools of the type in other countries is the stress which it places upon the essentials of a general education. . . . The feature which distinguishes the day industrial schools from our other secondary schools is the attention given to practical training for industrial employment." [66, 1918, 20].

"It has been the aim of the Department through the organization of the Industrial and Technical Schools to provide for a thorough training in the essentials of a general education as a basis for citizenship and vocational efficiency and at the same time, to furnish specialized training in the subjects and operations which are fundamental to trades and industries." (Report of Director of Technical and Industrial Education, 1914.) [66, 1914, 11].

Curriculum.

Courses of study are briefly outlined in the departmental Regulations, but the details are left to the local school committees to fill in. The full-time day courses are planned to cover three to four years of progressive work. The first two years are exploratory in character, with the purpose of supplying vocational guidance; specialization begins with the third year. This arrangement is explained by the Director in his report for 1919:

"A pupil of 4th form standing in the Public Schools is not in a position to choose wisely an industrial vocation. Accordingly the main purpose of the practical work for the first two years of the day industrial schools is to furnish a variety of experience which will serve as a basis for an intelligent choice of an industrial vocation. At this stage, no

effort is made to give any direct instruction for a particular trade, but as far as possible, the courses, especially in mathematics and mechanical drawing, are selected because the subjects treated are of fundamental value in a variety of industrial employments. The pupil who drops out of school at the end of the second year's course but does not select an industrial employment has lost no time, because he is equipped with a good practical education which will be of value to him in any pursuit.

"Where a four years' course is established, the advanced classes as a rule, take specialized training for certain particular vocations. The chief distinction between the industrial and technical courses is made in the curriculum for the third and fourth years. The industrial courses give attention to the requirements of trades, while the technical courses are especially adapted for those who are preparing for positions in which specialized knowledge of a technical character is required. No trade class, directly intended to take in full the place of apprenticeship, has been established in the Province." [66, 1919, 21].

To ensure the dual function of general and specialized training, two groups of subjects, A— and B—, are clearly differentiated in the Regulations. The A— subjects are designed to give pupils "as a basis of citizenship, an extension of their training in the essentials of a general education." The following are obligatory in all courses of study: physical training and hygiene; English literature and composition; history, civics, and elementary economics; arithmetic, geography, and elementary physics. B— subjects supply "a specialized training in the subjects, processes and operations which are fundamental in the fields of work to which the courses are related."

The student's time is proportioned between these two groups of subjects in a diminishing scale of fixed allotment.

"(1) During the first two years of the course, the time to be allotted to the subjects of A— and of B— prescribed in Regulation 69, shall be approximately equal. (2) During the third year of each course not less than thirty per cent. of the time shall be allotted to the subjects of A—, and not

less than thirty per cent. shall be allotted to the subjects of B— under (1) and (3) of each course. (3) During the fourth year of each course not less than fifteen per cent. of the time shall be allotted to the subjects of A—, and not less than fifteen per cent. of the time shall be allotted to the subjects of B— under (1) and (3) of each course.”¹ (Regulations, Sec. 68.)

The range of the curriculum of vocational schools may be illustrated by reference to that of the Toronto Central Technical, one of the most comprehensive, which offers the following courses: Industrial Course for boys; Matriculation for boys (admission to the Faculty of Applied Science); Art; Matriculation for girls (admission to household science course and also pass matriculation); Home Economics; Industrial Course for girls.

The differentiation in the third and fourth years is shown in the Industrial Course for boys, which offers, in addition to mathematics, physics, chemistry, English, shopwork, mechanical drawing, and printing, all continued from the first two years, the following new subjects: steam engine and power plant; gas engine and automobiles; watch and clock-making; fine machine and tool-work; architectural and building construction; estimating; perspective; machine construction; topographical drawing; lettering; color work; history of art; art composition.

Examinations.

Vocational schools are not, on the whole, concerned with departmental examinations, except that some schools have courses which prepare for entrance to certain technical courses in the university; e.g., the High School of Commerce, Toronto, for the university course in Commerce and Finance; Toronto Technical High School (see above). “The only

¹ (1) and (3) of each course refer to actual practice in the operation of the course, as distinct from related studies.

successful reaction against courses fixed by examinations are those of a vocational character," said Dr. Merchant, before the Ontario Educational Association in 1920. [55, 1920, 482].

Federal Aid.

One other special feature of vocational schools calls for attention. Although education is strictly an affair of provincial control in Canada, yet the Dominion Government gives aid to the provinces for purposes of industrial education. Agricultural education has received such aid since 1913. It was extended to technical and industrial schools by the Technical Education Act of 1920, which carried out the recommendations of the Royal Commission of 1913. It is within the power of the province to accept or reject the federal grant. The report of the Director of Industrial and Technical Education in Ontario (1919) describes the action taken by this province in the matter:

"By a Provincial Order-in-Council the Province signified its desire to take advantage of this Act and an agreement has been made between the Dominion and Provincial authorities setting forth the conditions upon which the Dominion funds will be made available for Provincial expenditure.

"In accordance with the terms of this agreement, technical education is defined to mean and to include education or instruction which is supplementary to and distinct from the general educational system of the Province, and the controlling purpose of which is to fit young persons for useful employment in vocational, technical, or industrial pursuits, or to improve the efficiency of those already employed in any such pursuits." [66, 1919, 14].

The grant is apportioned among the provinces annually on a basis of population, and the share of each must not exceed the amount expended on technical education by the province itself within the same year. The provinces report on the use made of the grants to the Dominion Minister of Labor, and this use must be approved by both Houses of Parliament. [63, Secs. 3, 4, 5, 6, 9].

CHAPTER IV

THE TWO-FOLD AIM AND THE DUAL SYSTEM OF SCHOOLS

The secondary education system in Ontario, outlined in Chapter III, consists of two types of institution, academic high school and technical and industrial vocational schools. The two groups are kept quite separate, and in fact are administered under different acts of the legislature. The high schools, the largest and oldest group, are commonly considered most representative of general secondary education. Technical education to which federal aid is granted, has been defined by an agreement between province and Dominion as "supplementary to and distinct from the general education system of the province."

The situation presents three issues: First, what meanings do the terms, general and vocational education, at present have in Ontario secondary schools, and what meanings should they have? Second, what is the proper and legitimate relation between the two? Third, what is the effect of the separation of the two kinds of schools upon the aims of both?

I.—Meaning of the Terms: A.—General Education.

General education is provided for all students in both the high and the vocational schools in Ontario. It is designed to produce "well informed and intelligent citizens." Also it is considered a basis for vocational training, since "instructed intelligence is a most important factor in vocational efficiency."

In the high schools general education is not clearly differentiated from education for special purposes. Certain subjects of "common culture" are required of all students. Besides those general subjects that run through all courses, there is offered

also a *general course* for "the average boy and girl," i.e., for those who are not taking any of the special courses—commercial, or normal school or university entrance.

In the vocational schools, general education is provided in a group of academic subjects—Group A—which are obligatory for all students, in contrast to specialized technical and industrial subjects of Group B, among which students may make a choice. The obligatory subjects in the two schools, while not identical, are closely similar in range¹ and content. "Those entering our vocational courses from the elementary schools are obtaining in reality a fair general secondary education; the training given in English, mathematics, and science is the equivalent of that provided in our high schools."

"The Content of Education."

General education in Ontario is evidently in line with what has been called "the tradition of learning". That is to say, the prescription of certain general subjects, obligatory for all students, points to the conception that a fairly well-defined body of knowledge comprises the essential content of "education." It is a selection from "the best which has been thought and said in the world." Possessed of that knowledge, a man may lay claim to be "educated." By insuring its common possession by all citizens, the state furnishes society with a standard of culture, and a basis of mutual understanding and co-operation among its members. The tradition of learning thus centres attention mainly on the subject matter of learning. It regards education as the work of passing on the wisdom of the past to each genera-

¹ *High Schools*: English (literature, composition), Canadian history and civics, physiography, algebra, geometry.

Vocational Schools: English (literature, composition, grammar), history, civics, elementary economics, arithmetic, geography, elementary physics.

tion of youth, in order to prepare them for worthy adult living.

The conception of education as growth on the other hand cannot accept this emphasis on subject matter as such. For growth centres attention upon the learner and his needs. It regards the work of education as that of improving his present life by meeting his present needs. At the same time, it prepares him for future living by teaching him to live now.

When this kind of growth is accepted as the aim of education, the subject matter of learning is no less an indispensable factor than in the traditional idea of general education. But now it is treated purely as the means to the learner's growth. It becomes exceedingly difficult however, if not impossible, to name in advance a defined content of subject matter which should make up general education. Life, whether adolescent or adult, is increasing in complexity at a bewildering rate, and the need for knowledge multiplies accordingly. We want education to open up wide doors to knowledge, and reveal its limitless possibilities, instead of defining it within limits. The essential thing is that each one get at each time just what will help him to grow most at that time. Freedom and breadth rather than uniformity would seem to be the criterion.

Whether education for growth be considered in its social or in its individual aspect is immaterial. The result, properly viewed, is the same. Change in an individual is not growth unless it be of a kind that helps others. Growing individuals produce an improving society; improving society increases the opportunities for the growth of its members. From either approach, the responsibility rests upon the state to provide general education to meet the needs of all citizens. The standard of reference in that general education is the growth of the individual living in association with all his fellows.

Common Culture from Shared Experience.

But must not our citizens have some common basis of culture? Must they not participate in some shared knowledge, appreciations, and standards, such as the existing uniform general education is designed to furnish? A common basis is undoubtedly essential, both for individual and social growth. Individuals live most fully when they are active members of a social community; and that membership calls for large resources of understanding, sympathy and co-operation. "The unsolved problem of democracy," says Dewey, "is the construction of an education which is intelligently alive to the common life and sensitively loyal to its common maintenance." [33, 333-35]. Again, his criterion for good community life points to this prime need of fellowship. "How many and varied are the interests which are constantly shared? How full and free is the interplay with other forms of associations?" [6, 96].

Common culture may be more profitably thought of as a result rather than a cause of fellowship. Cause it is, but cause best as it is first result. We are social by nature. We reach out instinctively for the spiritual reinforcement that comes from corporate living. Thus our shared needs and enjoyments drive us to gather a common knowledge, to form common habits, to judge by common standards, and to work for common ends. A common culture achieved through rich and varied experiences of social living does indeed bind us closer together. Does our present general education meet these requirements? Will uniform secondary school training in English, mathematics, science, and history, produce intelligent responsiveness to the common life, sensitive loyalty to its common standards, conscious sharing of interests, and wide interplay of associations?

The work of the school is to improve upon the normal process of social living. In a society more or less split up by class differences, by local peculiar-

ities, and by specialized interests, the school may be a really unifying agent. It does this best, not by furnishing in advance and separately the tools of a common culture, but by providing opportunity for introducing boys and girls to a specially rich and varied social environment. By living together in such an environment, and studying together the common problems so raised, they will surely have their outlook upon life vastly enlarged. The school could then help to bring to consciousness the needs and purposes that this enriched experience would stimulate. It could help to select, interpret, and refine those needs. It could open the doors to the resources of learning that are available for meeting them. Through those open doors new needs would be encountered and students would be led on to further learnings. In those shared experiences of the classroom, social living would be found at its best. A general education of this kind, producing a common culture, would thus be the means to students' growth.

“Essentials.”

But some one will ask anxiously, after all are not these prescribed uniform requirements of the general course merely the common essentials to good living and to growth? Is not mathematics required by everyone for everyday business? Should not all industrial and technical workers be introduced to the study of economics and physics? (Why only the technical and industrial workers, we wonder?) Do not English literature and Canadian history minister to undeniable needs for cultural development? If we did not require these of students, and students should fail to see their importance, would not their loss be irreparable?

To such questions we may well agree but with reservations. The content of these courses does enter vitally wherever one is living richly in matters of business and social and individual concern. But

again we ask, what is cause and what is effect? Does the learning bring the living? Or does the living call for the learning? When they are really needed, they will be surely learned, if only the opportunity be presented, and provided always that students have acquired a friendly attitude to learning. If that fundamental attitude is assured during school years, we need not worry that some other results are delayed.

But what if a student fails to see the need for a subject essential to his present growth? Two answers are possible. It may be that life for him lacks some measure of richness, so that for him the need has really not arisen. Or the need may be there, but the connection between it and the subject of study have not been made clear. In either event, the school must answer for the lack. "The work of education is the creation of needs." But to meet the need without first creating a consciousness of it, is to put the cart before the horse—generally at best a futile and ungrateful task.

Life is clamorous with needs for learning. Are our schools sufficiently in touch with life that boys and girls within their walls will hear? Or perhaps we should ask, are our schools alert to recognize the needs that boys and girls themselves experience, and to point the way to their satisfaction?

Summary.

Ontario aims to give to all students a broad, general education of a specified content, that shall form the basis of a common culture. But general education, to be a means of growth, must be the means to meeting students' needs. It will be general not by virtue of uniformity of content, but by virtue of the common needs of our students. It will be marked, not by prescription but by variety of opportunity. Whatever in the general field of knowledge is found to be of value to the student's present living, will come within its purview.

While providing freely for individual requirements, it will trust to the common needs of social living to produce the necessary measure of uniformity. It will seek to create in our schools such conditions as will reveal to students their social interdependence. From such a general education we shall expect not less content of learning, but richer, not fewer essentials but more. But the emphasis in objectives sought will be shifted from content to conditions of shared growth in a common society. We shall think of education not as a product, but as a process, not as something that we can "have," but as something that we shall be forever enjoying and forever pursuing, and the common pursuit of which will issue in a fellowship of common culture.

B.—Vocational Education.

Vocational education, commonly understood to mean a preparation for earning a livelihood, is also, in a measure, provided in both groups of our Ontario schools.

The vocational schools give this preparation to all their students through "specialized training in the subjects and operations which are fundamental to trades and industries." The high schools, common thought to the contrary notwithstanding, are virtually vocational for two or three groups of students. First, they have in some cases a definitely vocational commercial course fitting for a business career. Second, in preparing students for normal school and university, they lead towards higher specialized training for various professional occupations. Only in the general course for the so-called average boy and girl, there is no conscious vocational outlook.

The position taken here is that, if the aims of education as growth are to be intelligently pursued in Ontario, vocational education, like general, needs a broader and richer content than is at present implied in either of the groups of secondary schools.

Vocation a Directing Agency.

From the point of view of life as growth, a vocation is not best thought of as primarily a means of livelihood.

“A vocation means nothing but such a direction of life activities as renders them preceptibly significant to a person because of the consequences they accomplish, and also useful to his associates.” [6, 359].

From this point of view, vocation again takes on its original etymological sense of “calling.” It is thus, as here used, a psychological rather than an economic term. A vocation to be a real calling must be a man’s controlling interest. As such it makes his life purposeful to himself as well as to society. It focuses his attention, directs activities, organizes effort, co-ordinates and integrates learning. It is a key that gives organizing meaning to his experiences. It thus furthers the “reconstruction of experience” which is the way of growth. The term *directional* may suggest the organizing function of vocation conceived in this larger sense.

Just as life without a purpose is likely to be futile and unhappy, so education without a directional trend toward an end recognized as of intrinsic worth runs every risk of dissipated energies and wasted resources. An illustration may be found in a recent study of the effect of College Entrance Requirements:—

“The last and most important of the reasons for low scholarship, as related to entrance requirements, is that attention is centred on study as something not particularly worth while in itself, but merely something with which to get something else. So the pupil learns to look upon his secondary education only as a means of entering college. When he gets into college, he in turn looks upon college work merely as a means of obtaining a college degree. The result is that he is inclined to seek both ends at the minimum of time and energy, and to the extent that he is not doing his best, to that extent he is being miseducated. But to many students the ‘gentleman’s grade’ is sufficient.” [16, 114 manuscript].

Psychological Value of "directional education."

The psychological value of directional education calls for further elaboration. Once again, this consideration emphasizes vocation not as a means of livelihood, but as a controlling interest. If a student has no such organizing factor in his life, then, from the point of view of character building, it is surely the responsibility of the school to help him discover one. To insist that all secondary education should be directional is simply to recognize and make use of certain psychological facts concerning the characteristics of youth, the laws of learning, the relation of interest and effort, and the process of organizing and unifying experience. To ignore these facts is worse than futile; it is destructive.

Psychologically, secondary education that is directional ministers to boys' and girls' normal interest in preparing for the future. It is a matter of common observation that almost every adolescent is interested in looking forward, more or less definitely, to a "career." Very often youthful plans are materially changed as the years go by, and in many cases this is probably desirable. It may be that a boy cannot choose his ultimate course during secondary school days. But is there anyone who can do it for him better than he? By neglecting to give guidance in the matter, we do not really avoid the problem of choice. We merely leave choice to blind chance. The student who leaves secondary school without some more or less clearly defined plan of subsequent action is at the mercy of the first "odd job" that turns up. A vocation of the broad kind above described would be more than likely, however, to open up a changing, developing outlook with advancing experience. The vocation, carefully chosen in the secondary school, though it might not prove to be the student's eventual life work, would at least have played an intelligent part in the discovery of it. This kind of preparation for the future when the end is keenly recognized and whole-heartedly adopted by

boys and girls, is obviously an intelligent contribution to their active present needs. Thus it fulfils the requirements of growth. On the other hand, education that is merely preparatory in a general way for a vague uncharted future, fails to supply adequate preparation, while at the same time it ignores the demands of present living.

"The ideal of preparation becomes self-contradictory when it is not secondary to the maintenance of the process of development. This is true, whether we take the half-formulated aims of preparation for promotion, for passing examinations, for entrance into some higher school, or the generalized conception of Spencer that education is adequate preparation for life. The end, if conceived merely as something delayed and postponed, something affecting exclusively a future time, has no intrinsic connection with the students' present activity. It fails to supply adequate motive power. A vaguely-discerned future disconnected from the present has little impelling power. It is so adventitious, that external stimuli have to be resorted to, such as threats of immediate penalties, promises of immediate rewards. A merely remote end also encourages procrastination. The present offers many attractions. These tend to crowd out an aim which can be realized only in some indefinite future. Making preparation the chief end fails, in other words, to secure good preparation. Continuous growth, on the other hand, effects a continuous reorganization of powers. Although it has an application in the present (since the pupil is to be growing here and now), it also leads continuously into new fields. The process of realizing present possibilities means a constant advance. It results in preparation, although preparation is not made the mainspring of effort." [30, I, 33].

Directional education, then, is the right and ultimately the obligation of all secondary school students in Ontario. Education that aims to be general without being also directional, has missed its point, its unifying factor and drive.

Social-Economic Value of Directional Education.

Along with the psychological value of directional education, we must recognize its social and economic significance. Directional education may include the more usual and limited meaning of vocation as a means of earning a living. It has no

quarrel with a high degree of technical, industrial, or academic efficiency. But, as an educational conception, vocation will not necessarily be confined to preparation for remunerative employment. Some people have "callings" that enrich their lives apart from their means of livelihood. As a general rule, however, the happiest situation is probably found when we are keenly interested in the work by which we now or later expect to earn a living.

It may be rejoined that not every boy and still less every girl in Ontario will be required to be self-supporting. This may, under present conditions, be admitted, but it is not a desirable situation. Social parasites, men or women, are a menace to a democracy. A person who is not a producer, in the sense that he lacks a means of contributing to the life of the community, is an unprofitable citizen. Moreover, as a social being, whose individual development is socially conditioned, his growth is jeopardized. "The opposite of a career," says Dewey, "is neither leisure nor culture, but aimlessness, capriciousness, the absence of cumulative achievement in experience on the personal side, and idle display, parasitic dependence upon others, on the social side." [6, 359].

For a very few of our boys and more of our girls, the economic value of vocation may indeed be considered of secondary importance to its basic value of providing individual development through social usefulness. In the great majority of cases, however, economic independence is fundamental to good living. In all cases, education that contemplates vocational efficiency is in the best interests of both the individual and society as a whole. This conclusion was one of the findings of the Royal Commission on Industrial Training and Technical Education, 1913:—

"It becomes more and more evident that education must have a vocational aim and result if the industrial activities of the people are to be of benefit to all the individuals and to the State which they constitute. . . . In the organization

of this form of education, the attempt must be made to meet all the needs of all the people, with care that none shall be debased by the occupations for which they are prepared, and none shall be debarred from earning satisfaction as well as satisfactory wages, from labour." [57, I, 19].

Vocation in Ontario Schools.

The vocational schools of Ontario are in harmony with the position described here, inasmuch as they give specialized vocational training to all their students. This is not enough, however, if vocation be thought of purely in terms of narrow, specialized occupational efficiency or personal economic advantage. Vocational education that is directional must also be seen in the wide reaches of its social and psychological significance.

The high schools appears in a measure antithetical to the directional idea of education. In the first place, the general course provides for students who have no aim or purpose in their school work beyond "getting an education." In this course, at least, educational aimlessness is apparently condoned if not actually encouraged.

In the second place it is open to question whether the "purpose" of university preparation is, in any real sense, directional of present activities for most students. Are they not, in many cases, going with the crowd along the line of least resistance? To judge from the universities' criticisms of the students that come to them, apparently many drift on to the university simply because they have no definite objective in view. The situation is described by W. J. Dunlop, Director of University Extension, University of Toronto, in a pamphlet entitled *The New University Entrance Requirements*:—

"One of the difficulties with which any university has to contend is the fact that there are a good many young people who are more interested in the social than in the academic life of a university. . . . Faced with the dilemma which the less earnest type of student produces, faced also with the fact that literally scores of such students fail each year in their ex-

aminations, the universities of Ontario are driven to the necessity of raising their entrance standards. But this has been done solely for the purpose of barring out the student who is too immature or whose previous education is too meagre to enable him to take advantage at his present stage, of the work which the University has to offer him. . . . It is obvious that the mature student is the student that the University wants."

If Mr. Dunlop's phrasing were changed to read, "It is the *purposeful* student that the university wants," it might throw considerable light on the causes of the universities' dissatisfaction. Except for the comparatively few students whose incentive is the competitive urge to keep at the head of their class, the testimony of experience would seem to show a lack of intrinsic purposefulness in university work for which the secondary schools must be called into the reckoning.

We may consider it a matter for congratulation that our educational standard has been so raised as to make university education almost as common a privilege to-day as secondary education was a few years ago. But if this extension of educational privileges merely results in a policy of extended drift for our students, its value must be questioned. If all students preparing for matriculation, on the other hand, were doing so because they foresaw in the university course a real fulfilling of their present experience, what a difference would it not make in the growth value of their high school course?

Summary.

To all students in vocational schools, and to some in high schools, Ontario gives vocational as well as general education.

But vocational education that is a means to growth must be directional. It will give general trend to all a student's activities, making them not vaguely educative but definitely related to a purpose in life. It will lead preferably toward a means of livelihood because of the social and individual value

of economic independence. But it will not necessarily train for complete industrial or mechanical efficiency such as could be best supplied by short-time specialized apprenticeship in an industry. Its decisions as to a career will properly be not final but will lead to development. Its directive quality will be evident in guiding present interests, and the present well lived will thus constitute a real preparation for future living. Directional education of the kind advocated here will be a feature of the secondary school experience of all students, whether their centre of interest be technical, industrial, commercial, or professional.

II.—Relation of General and Directional Education.

In order that the two-fold objective of general and vocational education may make the greatest possible contribution to students' growth, we need, not only a richer content for both, but a changed relation between them. Perhaps this latter change would help to effect the former. If the two were united in a different combination, we might get not only a different total product but a difference in each of the elements.

The policy in Ontario is to keep general and vocational education separate and distinct from one another. Yet in actual experience a man's general education and his vocation are intimately related. From his total knowledge and experience at a given time—his "general education" to date—he chooses a vocation. If it is a really dominating interest, his whole life is affected. In greater or less degree he interprets everything in the light of his work. Each experience takes on added meaning because of it. He is anxious to learn more and more about his controlling interest. He becomes responsive to things that otherwise would escape his observation or bore him. His vocation is, then, "the centre of organization for the most liberal form of culture."

On the other hand, broad and diverse interests without such a centre are apt to result in superficial dilettantism. The man who lacks an aim such as that offered by a directional vocation, is likely to be "jack of all trades and master of none." Unless wide interests are linked up with each other and with some unifying, co-ordinating interest, they are almost sure to end in distraction and disintegration. If, however, they are so organized, then every new experience will count to the maximum in learning value. For whatever its point of contact, it will eventually make its contribution to the whole.

Dr. Felix Adler, widely known as an ethical leader, discusses this cultural function of vocation in an article on "The Ideal of Culture for Business Men," in *The Standard* of March, 1924.

"Now as to the method whereby the business man shall acquire culture, the distinctive feature in the plan which I submit is that he shall acquire it, not outside of his specialty, but in and through it, by means of the opportunities for culture which business itself offers him."

For example, of the way vocation may broaden a man's outlook on history, he says:—

"And the history of commerce, rightly taught, must implant in the young man the idea that business is a profession, a vocation, that the production and exchange of commodities, the proper function of commerce, is one of the great kinds of social service, and therefore that a man in business must think of himself as a social servant, as a vocational functionary."

Cultural versus Narrowing Specialization.

The distinction must be clearly made, however, between a narrowing and a cultural specialization. There is a kind of intense devotion to one's work that blinds us to its wider implications. A high degree of specialization always runs that risk.

"There is doubtless—in general accord with the principle of habit—a tendency for every distinctive vocation to become too dominant, too exclusive and absorbing in its specialized aspect. This means emphasis upon skill or technical method at the expense of meaning." [6, 360].

Is not the ablest specialist likely to be the man who is also at home in the general field around his specialty? When however a controlling interest falls a victim to its own overweening power, then vocation may become the antithesis of culture.

It is only too true that many kinds of work are so narrow and mechanical that they seem to offer little if any outlook on cultural interests. They call for rule-of-thumb, machine-like efficiency in their workers. The fact may be admitted, but does it not therefore constitute an added challenge to those who believe in education as growth? Our schools claim to serve the interests of students rather than the interests of industry. If they would prevent students from being drawn into "blind-alley" occupations, they must aim to make all occupations as far as possible significant, by equipping workers with industrial intelligence. This may be an open door of opportunity for the schools of Ontario to join with other forces to bring about a better industrial order.

"The demand for such education as will acquaint workers with the scientific and social bases and bearings of their pursuits becomes imperative since those who are without it inevitably sink to the role of appendages to the machines they operate. . . . While the *intellectual* possibilities of industry have multiplied, industrial conditions tend to make industry, for great masses, less of an educative resource than it was in the days of hand production for local markets. The burden of realizing the intellectual possibilities inhering in work is thus thrown back on the school." [6, 367].

Education for Leisure.

The fact that work is so often narrowing instead of cultural in its effect may be due to the curious persistence of an old aristocratic opposition between culture and work. We do not, indeed, as did an earlier generation, apportion them to different classes of society. But we regulate them to different parts of life. We identify culture with leisure and oppose it to working-hours; i.e., to vocation. Work is utilitarian and mundane; the refinements and

amenities of life belong to the hours of leisure. This is a natural result of divorcing culture and livelihood.

Moreover, with the shortening of the working-day due to industrial and mechanical development, the amount of leisure available is rapidly increasing. The problem of its right use is becoming a matter of increasing concern. Is not again the root of the trouble the fact that leisure is merely welcome reaction from uninspired work? "The life which consists of dull, bread-winning drudgery with the admixture of pleasure, is unbalanced, and leads to violence." [25, 300]. For those whose work is a calling and virtually directional, the fruitful use of leisure is no problem. To educate for leisure is to educate for broadening and enriching work.

Relation between general and vocational courses in Ontario.

Our schools have the opportunity of making clear the inherent relation between vocation, properly conceived, and culture, by their organization of directional and general courses. As matters now stand, the opposition between them is more obvious than their relationship. This may be illustrated by the clean-cut separation into two groups of general and special courses in the vocational school curricula.

Special courses—Group B—include, besides "the practical study of the fundamental operations" of the vocation, also "related subjects," e.g., in the Industrial course, "mathematics and science related to the needs of industry;" in the Home-making course, "science related to the needs of home-making;" in the technical course, "Mathematics and science needed for (a) preparation for junior executive positions in trade or industry, or for (b) admission to the engineering college;" in the Commercial course, "mathematics and science related to the needs of business;" in the Agricultural course, "mathematics and science related to the needs of agriculture." The general subjects—Group A—on

the other hand, are not related to any vocation. They give students "as a basis of citizenship, an extension of their training in the essentials of a general education." The implication is clear; in the present scheme, general education and vocational education are mutual exclusives. The general and special courses are treated as separate and parallel instead of being inherently interrelated.

Furthermore, general education should provide a wide basis of choice of vocation. This requires at least a bowing acquaintance with many varied activities. Ontario aims at the extension of general education by postponing technical and industrial specialization until the secondary school is reached. But we have not taken the other logical step of providing somewhere along the way an opportunity for experimenting with different lines of work, so that a student may have a broader basis for choice of vocation than merely the occupations of his family or his local community.

This exploratory function is one of the characteristics of the Junior High School movement in the United States. During three years of transition from the elementary school to the high school, it is possible in some schools to try out short courses in a number of fields.

The vocational schools of Ontario are evidently feeling after this exploratory function.

"The main purpose of the practical work for the first two years of the day industrial schools is to furnish a variety in experience which will serve as a basis for an intelligent choice of an industrial vocation. At this stage no effort is made to give any direct instruction for a particular trade, but as far as possible, the courses, especially in mathematics and mechanical drawing, are selected because the subjects treated are of fundamental value in a variety of industrial employments. [66, 1919, 21].

The measure of their exploring is, however, scarcely adequate. In the first place, it comes after the student has decided on a vocational course in preference to an academic one. It offers no help in choosing between those two. In the second place,

the student's exploring is fairly closely predetermined for him by the Department's selection of required courses.

Possibly also the idea of prolonging the period of non-specialization for those financially able to take advantage of it lay behind the non-vocational course of the high schools. The student is to be given as long a period of general education as possible. The end of high school days is considered early enough for him to choose his life work. But if this was the argument, the practice has overlooked the critical point at issue. Prolonged generalization should be a purposeful exploring; otherwise it becomes merely prolonged drift. The general course of the high school can scarcely be called exploratory in any sense of the term. It is a highly specialized academic course, selected in large part from the subjects of a curriculum drawn up for university and normal school requirements.

It may be that the period of exploration should be continued for some individuals throughout the whole secondary school period. It may be that its duration should be determined by the rate of a student's physiological or psychological development. Perhaps, under our present economic organization of society, it must be determined in part also by economic factors. But, at any rate a general course that would form an adequate foundation for a vocation and subsequently a cultural outgrowth from it, could be offered only in schools where the curriculum offers wide choice among many different kinds of courses, including the academic but not confined to these.

Summary.

General education should then be so conceived and so conducted that it will sooner or later become focused in a centre of interest—a vocation widely interpreted. From this focus as centre and source, lines of influence will radiate in every direction of

human interest. In most intimate connection with the vocation, will be subjects "directly related" to it. If interest stops there, however, with science related to industry or agriculture or home-making, we may consider the cultural function of the vocation to have fallen short. A directional course in workshop or laboratory, or in the academic field, should lead on to a broadening interest in wide general fields of literature, or mathematics, or science, or history, or other aspects of "common culture." The teacher who finds in any specialized field a real vocation should be able to point the way to its wider reaches of significance. Always the vocation will bear its directing, organizing, impelling part. So general and directional education will be merely different terms of a unified life activity. "There need be no essential difference between the aims of Industrial Training and Technical Education and those of general education." [57, I, 19].

Such a relationship between general and directional education would seem to realize the ideal expressed by the former Director of Vocational Education in Ontario, and quoted in Chapter I:—

" I believe that no sharp line of distinction can be drawn between vocational and cultural education. True culture implies a motive in service. The ideal is not a liberal education for the enjoyment of a life of inaction and leisure, but rather the most liberal training for all forms of service. Now, while an individual may serve in a great variety of activities, his chief service must be directed through his vocation, and his education should accordingly follow the lines which will bring him into the most complete freedom for his work, giving him not only practical skill but, at the same time, helping him to understand and to view it in all its fullness of relationships—scientific and mathematical, social and historical, aesthetic and ethical. Vocation, therefore, may become the centre of organization for the most liberal form of culture."

III.—Effects of Separation of Schools.

The inherent interrelation of general and vocational education and the enrichment of their meaning is materially affected by the separation of high and vocational schools in Ontario.

Separation of Courses.

As has already been pointed out, the dual organization cuts off permanently the student's opportunity for a wide exploring of various possible fields of study, necessary to wise choice of a vocation. Similarly, the separation of academic and practical courses in different institutions prevents his free ranging over all kinds of courses for the general education that should lead out from the vocation chosen.

High and vocational schools have each a specific contribution to make to the other. The courses of study in the high schools are, from the very nature of the existing subject-matter, predominantly abstract and theoretical. History, literature, geography, foreign languages, deal largely in "book-learning,"—what have been called symbolic, mediated experiences, as contrasted with the direct, immediate realities of the work-shop and laboratory. It is the function of books to make possible a widening of life beyond the bounds of direct, tangible experiences. And, abstraction and generalization are normal stages in the process of thought, following upon familiarity with concrete, particular details. But beyond a doubt, much of the curricula of the high schools is an attempt to impart mediated experiences and generalizations lacking the essential backing of immediate contact with concrete data. Such learning does not enter effectually into life, because it has not come out of life. This may offer one explanation of why the practical man finds the theorist so unsatisfactory.

The vocational schools, for their part, are immensely concerned with empirical learning. They are at home in the concrete. Their danger is that they may sometimes miss the paths that lead out through imagination to realms beyond the immediate and the tangible. Vocational schools need to remind themselves frequently that vocational education is the way to broad culture.

These two opposed tendencies represented in the two types of schools might be expected to modify each other if any opportunity were offered for their interaction. Set over against one another, they are much more likely to invoke a spirit of reaction and to intensify any antagonism that may exist. Instead of balancing, unfortunately they are in the way of opposing each other.

Separation of Students and Teachers.

A further evil may be done by the separation of academic and practical students. Liberal education calls for wide and varied contacts with many groups of people. One of the greatest needs of our social life to-day is the cultural enrichment that comes from intercommunication between people differing in habits and ways of thinking. A democracy is peculiarly dependent upon mutual understanding and confidence among its members.

We are not free in Ontario from certain disrespect among the laboring men for higher learning. We know the attitude that discounts superior knowledge in the specialist in the name of a dead-levelling theory of democracy. Nor, on the other hand, are we unfamiliar with impatience on the part of the theorist with the man whose experience and temperament make him attentive to concrete, inexorable facts. If both are party to the understanding, both must contribute to its solution. But complete separation of students and teachers who may be taken roughly to represent two types of thinkers is surely not the way to make good this defect.

The Intelligence Factor.

The dual organization of schools at least provides a foothold for the association of handwork with dullness and academic work with outstanding intellectual ability. This is another heritage from an aristocratic order of society that is responsible for so many anachronisms in our democratic civiliza-

tion. There is a popular idea that practical ability usually exists in inverse ratio to ability for abstract thinking.

Psychological tests are furnishing data to prove the fallacy of that idea, however. Intelligence must be thought of as ranging on a continuous scale from idiocy to exceptional talent. The mentally defective, the dull, the normal, and the gifted student differ in degree, not in kind of intellectual equipment. We are being shown that mental deficiency is a general, not a specific condition, and carries with it a weakness along all lines.

'The feeble-minded' as a group, both as children and as adults, are inferior to the norms in all respects." [13, 130].

Conversely, outstanding mental ability along one line usually shows high correlation with ability along other lines.

"All relevant measurements witness to a positive correlation between efficiency in thought with abstract data and efficiency in thought and concrete data. . . . It is very, very hard to find any case of a negative correlation between desirable mental functions." [28, III, 361].

This does not deny the fact of special abilities. But it does deny, for example, that the skilled electrician is essentially less intelligent than the professor of classics, or that brains and "white-collar jobs" must necessarily go together.

Hampton Normal and Agricultural Institute in Virginia for negro students, which combines in one institution technical and industrial, normal, and university preparatory courses, has put up a fight on this very issue. It has combated the notion that enrolment in the industrial classes was an admission of inferiority. The effort is described in a Bulletin of the Bureau of Education:—

"There is a marked change in the attitude of students towards hand work of all kinds—a noticeable development of the idea of the dignity of honest and intelligent labor. In the early years of the school, the academic student was the aristocrat, the work student occupying quite a different social

position. This was partly owing to the fact that students failing to pass the entrance examinations were put into trades, while those who passed best went into academic classes and prepared for teaching or after graduating for professions.

"The first step toward dignifying the trades was when it was decided in 1897 that no student should be allowed to take a trade unless he succeeded in passing the entrance examinations, while, in order to take certain of the advanced trades, he was required in 1897 to pass for the middle class. No student in 1901 was granted a certificate after completing his trade unless he had spent at least one year in the middle class." [47, 31].

To-day the industrial students of Hampton are quite holding their own in comparisons of intellectual ability.¹

The association of mental inferiority with manual labor is not confined to the negroes of Virginia. The notion is sufficiently active and dangerous in Ontario to put us on our guard against any

¹ The following data were supplied by the head of the Trade School at Hampton:

"In the graduating class of 1912 there were 29 boys: 14 had taken trades, 4 the Agricultural course, and 11 the Academy course. Of the 12 boys standing highest in this class, 9 had completed their trades: 2 the Agricultural course, and 1 had been four years in the Academy. The Trade and Agricultural students had completed from two to three years of the Academy work in the night school without study periods while taking their trade, having a program of eleven hours per day for three years. The Academy students had 5½ hours of class work and 3 hours of supervised study per day. The Trade and Agricultural students at that time were required to finish the regular Academy course if they wanted the School Diploma, which resulted in a number of Trade and Agricultural students spending from one to two years in the regular Academy classes after completing their trade work.

"Last year (1922) Trabue's Mentimeter Test was given to all of our students. In the first year of the High School grade the average for the Academy students was 3 points above the Trade students; in the second year the Trade students were 1 point above the Academy, in the third year the Trade students were 2 points above the Academy, and in the fourth year the Trade students were 5 points above the Academy."

policy that might seem to lend it a vestige of support. Entrance to our Home-making and Art schools is at present permitted to pupils with "fourth grade standing." Entrance to the technical and high schools requires completion of the fourth grade. Further, by the agreement between province and Dominion above referred to, by virtue of which the province receives the federal grant for Technical Education, no person under thirteen years of age who has not passed the third class in an elementary school of the province, shall be admitted to technical day classes. This lets down the requirements to vocational schools two grades lower than for high schools—a permission, however, that the province has not yet taken advantage of. It would seem reasonable to suppose that the surest way to eliminate all suspicion of invidious discrimination against vocational schools would be to do away with the cleavage between the two types of school, and to interrelate the two groups of curricula and students instead of separating them.

"Class Education."

Closely related to the danger of differentiation on a basis of intelligence is the danger that cleavage between high and vocational schools may encourage class education—farming for the sons of farmers, industrial education for children of industrial communities, academic education for children of professional men, etc. The fact that children's interests are naturally so largely determined by home surroundings gives just enough justification in specific cases to this procedure to constitute a risk of adopting it as a general policy. For, taken as a governing principle, it is mischievous. It encourages parents and society as a whole to predetermine a child's career without sufficient attention to the claims of specific abilities, individual variations, and personal tastes. It provides a kind of occupational "in-breeding," which is nearly always a weakening pro-

cess, and which is prejudicial to a liberal culture. Why should not city children be taught agriculture, for instance, if they have a predilection for it? Some such adjustment of the balance may perhaps be desirable, considering the charges made against the schools of several generations, that they have been luring children away from the farms to city occupations.

Vocational Schools and Industry.

Another tendency, perhaps even more undesirable, to be found in the separation of the new technical and industrial schools from the old traditional educational institutions, is that of associating vocational education more closely with the promotion of trades and industries than with the general aims of education. Any such association, in fact, would effectually divorce cultural and vocational ideas in education.

The Technical Education Act provides that the Dominion government shall furnish aid to such education as is "necessary to aid in promoting industry and the mechanical trades, and to increase the earning capacity, efficiency and productive power of those employed therein." The Canadian Manufacturers' Association, testifying before the Royal Commission, argued for the constitutionality of federal aid to provincial education on the grounds that "technical education, or industrial education as it is more properly called, was more closely related to the trade and commerce of the country than to our educational system." [59, IV, 2116]. The implication of this argument is not, it is believed, accepted for a moment by our educational authorities. "No trade class, directly intended to take in full the place of apprenticeship, has been established in the province." [66, 919, 21]. But the argument points to the fact that Ontario needs to be continually on guard against that point of view on the part of business and industrial interests.

The same association said further:—

“In drawing up the curriculum for the preliminary and advanced courses, provision should be made if possible to give greater scope for the individuality of the pupils. This would tend to produce the type of men required to fill executive positions more quickly than any other means that could be adopted. It is recognized of course that too much freedom in this direction might defeat the object in view.”

The Association set definite limits of self-interest to its willingness to develop the individuality of the pupils. Vocational schools need to make strong their position that their object in view is not primarily to fill executive positions, but to provide for the greatest possible growth for boys and girls. A closer integration of the educational system might be looked to, to frustrate any attempt to divert the vocational schools from the essential aim and purpose of education in Ontario.

Inequality in Supply of Schools.

Students of Ontario are divided between high schools and vocational schools in the proportion of six to one. We have no reason to suppose that this proportion represents a like division of the interests and special abilities of the youth of the province. It is much more probable, to judge from the distribution of types of employment in adult society, that an academic course of study, as against a technical or industrial one, would be the choice of a very small proportion. More children probably go to high school because more high schools are provided.

The disparity in the supply of schools is in large part due to the fact that the academic type is traditional, and had a long start in the race. There is the additional factor, however, that we have not yet completely abandoned the old idea that secondary and higher education are properly “cul-

tural," and that culture is essentially academic. We give lip-service to the dignity of labor, but our school practice bears witness to our true allegiance.

Summary.

Ontario aims to link up general and vocational education, at least in the vocational schools, by insisting on the need of both for all students. But the organization of the schools works against their proper relationship. The effect of the separation of the two types of secondary schools in Ontario, is, in short: to hinder the interrelation of practical and theoretical courses; to separate technical and industrial from academic workers; to perpetuate a specious preference for academic work over hand work, as entitled to higher respect; to leave the door open to class education and the exploitation of vocational schools by the industrial interests; and to furnish facilities for the two kinds of work in a quite inadequate proportion. All these factors are, it is held, opposed to the meaning of education as growth.

The argument presented above with respect to the meaning of general and vocational education, their organic relationship, and the effect of their separation in Ontario, admittedly represents a faith and a hope. It proposes an end toward which to work. It takes shape, however, from a realization of certain ineluctable facts of our present social and industrial situation. These facts include, for instance: the psychological effect of interest and purpose in man's behavior; the democratic respect for personality and the interdependence of individuals in a democratic society; the growing prestige accruing to all kinds of employment, due in part at least to an increase in the complexity of industrial processes and hence in their intellectual possibilities; at the same time, the growing mechanization of labor, due to a high degree of specialization and scientific efficiency. Considerations such as these drive home

the vital importance of an adequate interpretation of vocation in education that is growth.

But still other facts press for recognition. The theory presented here proposes a marked departure from familiar school procedure, and any departure from established habit always encounters a greater or less amount of obstruction. The obstacles to change will probably be especially difficult in connection with institutions of such far-reaching influence as an educational system and an industrial order of society.

There is, to begin with the fact that the courses of study in our schools have been worked out through years of practice along other lines. There are the industries themselves, that have not yet to any great extent, turned from their preoccupation with securing merely technical and industrial efficiency in their workers, to the more vital task of securing their social efficiency. The educational significance of very many occupations has not yet begun to be explored. There is the traditional idea, based on an inadequate psychology and a philosophy belonging to a different social order, that education, for many people, is meant to serve some ulterior purpose, instead of being an expression of growing life—an end in itself and its own excuse for being. Finally, there is the fact that the theory of education as growth, here applied to vocational and general education in secondary schools, has not yet been given a really fair trial. It can offer no concrete evidence of assured success. It calls for an adventure of discovery as to ways and means, and has as precedent only the precedent of all those adventures and explorings, and pioneerings that have brought new worlds to birth.

Because of this situation, made up of opportunity as well as obstacles, it is here agreed that we cannot reasonably expect to bear directly down upon our goal. We must consider the existing situation in its entirety. We must start where we are and

build on the past. We must reconstruct experience, not ignore it. Therefore any immediate objective can be merely an approximation to our ideal, an approximation that will steadily increase as the obstacles are gradually surmounted, while the ideal is steadily held in view. But it should be added that, if we are true to our ideal, we must be prepared to find it also growing. We must expect to see it take on new outlines and added content as our efforts to reach it enable us to envisage it more and more closely.

These considerations hold, not only for directional education, but for all the other implications of the theory of education as growth.

CHAPTER V

THE DEPARTMENTAL EXAMINATION SYSTEM

I.—The Problem.

In all the high schools of the province, i.e., in thirteen out of every fourteen of the secondary schools, the departmental examination system is the standard for measuring students' ability and achievement. The newly constituted graduation diploma is a further extension of this principle. The same examinations are used to measure general education, fitness for a business career, and qualification for entrance to normal school or university. In a few instances, other procedures are available. For High School Entrance and Lower School examinations, the statement of the principal that a student has met prescribed requirements in school work is sufficient in schools meeting certain departmental requirements. Local tests are used also for promotion from grade to grade. But aside from these, there is no provision for recognition of work without departmental examinations.

These examinations have the further significance, that, from the point of view of the curriculum, they determine in large measure what is taught in the schools. Courses of study are drawn up to meet examination requirements laid down by the Joint Committee of the universities and the Department of Education. Thus, the departmental examinations, fixing the content of courses and determining achievement, may be said in effect to control Ontario high schools.

We may inquire, therefore, what is the bearing of this control upon the aims of education as growth. What are the apparent tendencies and probable outcomes of the examination system with respect to education for character? for citizenship?

for vocational fitness? for culture? Do the examinations add to the inherent and continuing worth of students' life? Do they meet the special needs of youth during their secondary school period? What learnings of all kinds in fact result from them? Do they help students to reorganize former learnings for present use? Do they open up fresh possibilities of future learnings?

A most frequent charge made against examinations to-day is that they are inaccurate measures of students' knowledge. A number of studies¹ have produced telling figures regarding the variability of standard found in teachers' marks. Another approach is that made by Dearborn, Thorndike² and others, who have found an exceedingly low correlation between students' success at college entrance examinations and their subsequent success at college.

Another point of attack is that suggested by Dr. H. E. Amos of the Hamilton Normal School, Ontario. Speaking before the Ontario Educational Association in 1922, he made the charge against all written examinations that they measure only one means of expression. He said:—

“Useful knowledge is that which is tied up to some mode of expression. Our present system of examinations test to what extent a candidate is able to express his knowledge in writing. They do not test his ability in speaking, constructing, carrying out plans, for example, which are of even greater importance in everyday life.

1.—Starch and Elliot — Reliability of Grading High School Work in Mathematics. *School Review*: 21: 254-59 (1913).

Starch—Educational Psychology. Marks and Measures of School Work, 426 ff.

Kelley—Teachers' Marking—T. C. Contributions to Education (66, 1914).

2.—E. L. Thorndike—The Future of the College Entrance Examination Board. *Educational Review*: 31: 470-483 (1906)).

Ben. D. Wood—Measurement in Higher Education. (1913).

"These methods of expression are never on the same level of excellency in any one person. We have writers who cannot speak; speakers who cannot write; doers who can neither speak nor write; speakers and writers who are hopelessly inefficient in practical action. No one will deny the truth of these statements as far as adults are concerned. No experienced teacher can doubt their applicability to children also.

"There is the pupil who answers well in class, but fails on her written test; the student who is dumb throughout the year, but takes an astonishingly high mark at her final examination; the active boy who will never pass, but whom we always call upon to arrange an experiment in nature study, or to fix a broken desk.

"It is evident that our present system of written examinations can test only one level of attainment. The standing obtained by a candidate does not represent a true measure of his ability." [55, 1922, 143].

Dr. Amos' criticism is the point of departure for this study; viz., that departmental examinations test a very limited kind of learning. They measure chiefly a student's information and his ability to reproduce it effectively on paper under definitely prescribed examination conditions. Or, else, what amounts to the same thing, they measure only the informational aspect of a possibly wider learning.

The inadequacy of mere information in education for full and worthy living needs little elaboration. Reference was made repeatedly in Chapter I to the futility of knowledge that is not incorporated in habits and attitudes. Knowledge of facts makes for growth when it is made over fruitfully into experience. That is, knowledge is truly educative when it gives increased control over difficulties or increased appreciation of deeper meanings in life. Valuable as a well-stocked memory may be under proper circumstances, it is barren unless its stock of facts enter into action.

In any ordinary situation, we judge an individual's intelligence by the way he puts his knowledge to work. We judge his culture by activities that reveal his tastes. We judge his character from his ideals and attitudes, his purposes and con-

duct, not merely from his information. If character-building is the all-inclusive aim of education, we are concerned to know of our students, not only what information they possess, but how their information finds expression. We are concerned with their information only as a background of their behavior.

If, then, the charge against the examinations be sustained, that they are primarily a test of accurate and precise memory of facts, rather than a test of how those facts are used, we must question whether they are making a justifiable contribution to the aims of education. We may ask, indeed, whether they are not doing positive harm by picking out a superficial factor of learning for one-sided emphasis in our schools.

Illustrations have been drawn chiefly from the field of history teaching. This choice is dictated purely by convenience, not by a belief that any one subject is more important than another in education for character. Life is a unity, no matter how much we divide it up in the subjects of a time-table.

II.—The Nature of Learning.

In order to judge of the kind of learning tested by the departmental examinations, it is necessary to consider first the characteristics of learning.

Learning of any kind is essentially indicated by a change in behavior, by acquiring new ways of feeling or thinking or acting. Behavior used in this sense is a wide term. We may discriminate roughly such kinds of behavior as remembering, reasoning, enjoying, fearing, and the more overt types such as walking or eating. Learnings may be grouped in some such crude classification as information, skills, attitudes, ideals, and purposes. All of these learnings, when they become actually incorporated in behavior, may be recognized as habits. Memory of facts is just one type of organization of learning or habit.

The Laws of Learning.

The nature of habit to be strengthened by exercise and weakened by disuse, is familiar enough. Other laws of habit observed by recent psychological investigations, are not yet so generally recognized. For example, when satisfaction attends the exercise of a habit, the strengthening is increased; when the exercise is attended by dissatisfaction, the habit is weakened. When a person is ready to exercise a habit, i.e., when he is interested, or attentive to the matter in hand, to act gives him satisfaction; when he is unready, to act gives him dissatisfaction, with corresponding effects upon the habit in question.

Frequent opportunity to use learning, then, under the stimulus of interest, and attended by success and satisfaction, is the condition best calculated to fix it in memory. The fixing may indeed at any time be so thorough as to withstand long disuse. The well-learned rhymes and stories of our childhood, for instance, are often learned so thoroughly that they remain with us though they are seldom recalled. Another factor influential in fixing learning is a strong emotional accompaniment. Some sights and sounds experienced only once, but experienced poignantly, are subject to recall over a long period of years.

The fixing of learning in memory has been the chief concern of teachers. Its strength or permanence was their ground of assurance that it would be available for use when needed. This fallacy is the basis of the "cold-storage" or "camel" theory of knowledge, i.e., knowledge learned and put away for future use. All learning that is merely preparatory is of this type, even although it looks forward to something as important as citizenship. But in assuming that permanence and usefulness are synonymous with respect to learning, we have failed to take into account another essential characteristic: viz., its complex structure. For the effectiveness of any unit of learning to change behavior turns,

not so much upon its strength, as upon the context in which it is set.

Connections versus Permanence of Learning.

Behavior is infinitely complex. Every single reaction is made up of countless factors. Every habit or learning is intimately connected with many other habits. "They co-operate in multitudinous combinations." [28, I, 10]. Thus, the stimulation of one calls many others simultaneously into play.

We have long known that, in order that learning may take place, we must "proceed from the known to the unknown." That is to say, something already learned, with its outreaching connections, must first be active—something must be "doing"—before we can learn. The new learning then immediately enters into combination with these previously formed habits that are active at the time of learning. Moreover, the older learnings extend the hospitality of their wide connections to the newcomer, so that it gets a steadily enlarging circle of connections in which it may be called upon to act. The new learning will not act alone but in combination with the old; or in other words, the old way of behaving, defined in the old habits or learning, is changed in quality by the assimilation of the new element. So the new learning is indicated by a change of behavior.

A simple illustration of the way habits thus intersect and interact is to be found in Pavlow's experiment of producing a "conditioned reflex" in a dog, described by Professor Woodworth, as follows:—

"Put into a dog's mouth a tasting substance that arouses the flow of saliva, and at the same instant ring a bell; and repeat this combination of stimuli many times. Then ring the bell alone, and the saliva flows in response to the bell. The bell is a *substitute stimulus* which has become attached to the salivary response by dint of having been given along with the natural stimulus that arouses the response. At first thought this is very weird, but do we not

know of similar facts in every-day experience? The dinner-bell makes the mouth water; the sight of food does the same; even the name of a savory dish will do the same." [33, 303].

Take a more complicated instance. Suppose a boy learns in school the facts of the French Revolution. These facts connect themselves with other historical facts previously learned, probably with the story of the old regime in France, possibly with that of the Russian Revolution. Perhaps they reach out and make connections also with a literature or geography lesson. They may relate themselves to some experience outside school, a story he has read, or a visit to the museum, or the news of the morning paper. They change in greater or less degree the meaning of whatever they connect with. It is quite possible for these connections to be narrowly limited to other learnings of historical facts in the student's repertoire. Obviously, the more they relate to his ideals, attitudes, purposes, and modes of overt action, the greater their influence upon his total behavior. But they cannot be learned in one specific connection and then put into other behavior that has none of the elements of the situation in which they were learned. A change in one function alters any other only in so far as the two functions have as factors identical elements. [28, I, 358].

This fact is discussed by Professor Arthur J. Gates on "The Psychological versus the Chronological Order in the Teaching of History," in the *Historical Outlook* of June, 1920:—

"In the development of direct work habits, habits of effective and desirable conduct in the home, the class-room, on the play-ground, in group activities, in the affairs of community and life generally, the contributions of history are often supposed to function, but usually as indirect or secondary results of training for intellectual and emotional habits. Knowledge and ideals, especially when accompanied by emotional fervor, are expected to provide appropriate conduct. It is unnecessary to discuss the unlikelihood that such training will ensure actual overt behavior in this easy manner, because teachers are well enough acquainted with the

convictions of educators and psychologists that we learn to do by doing. It should be equally well realized that we learn to feel by feeling, we learn to think by thinking, we learn to reproduce facts by reproducing them. The laws of habit formation are the same whether the habits formed are intellectual or emotional or muscular. Merely acquiring information does not insure desirable emotional or motor action. Correct emotional responses do not insure correct overt behavior. An 'ideal' may be a state of mind merely, with or without the desirable emotion or motor reactions. The fundamental fact is this—we learn that reaction we give birth to. The habits we form are precisely the habits we exercise. History must be evaluated on the basis of the actual training it provides, without assumption or indirect adjustments to life, formal training of powers, or any subtle influence of ideas upon action."

The Complexity of Learning.

Further, because of the interrelated nature of behavior, no single piece of learning ever takes place alone. The whole complex organism of the learner responds to the whole complex situation. Besides the specific unit of information or skill to which teacher or student may be attending, other learnings are going on at the same time—habits of work are being formed, attitudes to this work and to work in general, attitudes of students to each other and to the teacher. The range of possible "attendant" learnings is as wide as the total range of behavior. Moreover from the point of view of the student's character and growth, the attendant learnings are probably of much greater importance than the primary learning of information or skill.

"We as teachers may refuse to think of these attendant learnings. We may if we wish fix our eyes exclusively on a certain list of facts of history counted to be essential to the educated person, and work for them only. But we cannot in this ostrich-like fashion escape the ineluctable fact that our pupils are none the less and all the time learning well or ill these things. This manifold duty must be faced and consciously met."¹

¹1. Kilpatrick, William H.: "What Shall we Seek from a History Project?"—*Historical Outlook*, June, 1922.

Again, one of the most important aspects of any learning is its propensity to lead to further learnings. Any one learning in itself is of little significance compared with the opportunity it provides for more learning on ahead. The aim of education is more education. This leading-on capacity is clearly also a matter of the breadth of context in which any learning is set. The more numerous its possible combinations, the more its powers are multiplied.

Thus the chief concern of a teacher should be with the connections that the new learning makes in a student's total behavior. It is more important for him to see that these connections are wide and useful than to labor over merely fixing the learning in memory. Indeed, he might often trust the recall and consequent fixing to look after itself, provided the connections are properly cared for. For the wider the connections, the more likely the chances of recall. But we have confused the issue. We have emphasized a "thorough mastery of a subject," in the hope that, if the learning were only kept long enough, its use would come. We have not realized that its occasion of recall and its usefulness in recall are both largely determined by its connections.

Learning and Character.

These facts concerning learning and its connections explain the process of growth, or the way in which experience is reconstructed. They have, therefore, an intimate bearing on the problem of character-building. Character is the sum total of interrelated habits. Growth is the building of character by the learning of better habits. All types of learning are incorporated in character.

Unification of Personality.

Every individual has, in his complete sum of learnings or habits, a central core of habits that are very closely connected with each other. Among the

habits of this group there is much interaction. That is to say, this set of habits have come to terms with each other and have formed a working corporation, so that they reinforce each other at every turn. This organization of habits has to do with every phase of life, physical, intellectual, aesthetic and moral. We say a person has such and such a character or individuality. In terms of his habits, we mean that they work together to produce in general such and such a type of characteristic behavior.

Outside the body of closely-knit habits are others, connected with them, but not so closely. Being on the outskirts, they are not so frequently called into play. Hence they are usually weaker. Moreover, they will often be lacking in harmony with the central group. If they were harmonious, they would in all probability, join the organization. Their lack of harmony is likely to cause trouble. An inward warfare arises whenever one of these habits comes into conflict with the main group. The man is torn this way and that between conflicting ideals, purposes, or courses of action.

The clearest illustration of such lack of co-ordination is when a man's habits of thinking or reasoning fail to connect with his habits of overt behavior. We say he professes one thing and does another. That is, the two sets of learnings concerned are not working to reinforce each other. Lack of harmony may be found in the person who keeps his scientific and religious ideas in separate water-tight compartments. Perhaps the simplest case of imperfect unification of learning is ordinary forgetfulness. Something we once learned was not tied up closely enough with other learnings, or at enough points, to insure its being called into action when needed. Probably the consideration of supreme importance in building a unified life is the co-ordination of emotional and intellectual behavior. This is not to be rightly achieved by the subordination of either to the other, but by the harmonious reinforce-

ment of each by the other. So often we know one thing to be good but we desire another. One great aim in education is to teach us to desire the things we know to be good.

Our school procedure has not sufficiently taken into consideration the necessity for unified behavior to secure unified learning and unified personality.

When St. Paul wrote 'The evil that I would not, that I do,' he was giving voice, not only to the universal cry of humanity, but to the revolt from the residual vestiges of his training as a Pharisee. All education is in danger of being Pharisaical to this extent, that it tends automatically to keep theory of conduct in a compartment separate from conduct itself. In so far as it trains judgment, it tends to train it apart from opportunity to give effect to judgment; and experience teaches that principles learnt *in vacuo* have very little influence upon character." [22, 152].

The essential unity of the process of desire, thought, and action, the danger of separating any one part from the other, has been emphasized. . . . But when thinking of the average school as a training ground, an onlooker is forced to realize how little training in action as the direct and practical result of thought is given." [3, 89].

Every lack of unification of personality results in a certain weakness. The personality is less rich, less resourceful, less powerful than it might be if all learnings were at the disposal of the central core. Our aim, then, is to work for as great a measure as possible of co-ordination of the learnings of our students. That is, we want all learnings to be intimately and harmoniously tied together so that they may make their maximum contribution to his life. This is the condition of education for growth—that the connection of every piece of learning be as wide and varied, and withal, as intimately interrelated as possible with the learner's total behavior.

III.—Ontario Departmental Examinations.

Consider now the bearing of this discussion of the strength and connections of learning upon the Departmental Examination system in Ontario. What is the nature and extent of the learnings tested? What kind of behavior is subject to examination?

What indication is given of probable behavior under other circumstances? What is revealed concerning the total organization of learnings that determine the student's character or personality? And, considering the nature of the test, what is its probable effect upon the student's growth?

Nature of Examination Questions.

Students' answer papers are not available for study, but the examination questions may furnish evidence of the kind of learning called for. The following questions are from the history papers for Lower, Middle, and Upper School examinations through the years 1920-23. In order to get a quite random sampling, the first question of the first paper was selected, the second of the second, and so on.

1. Give an account of any three of the following:—
 - (a) The work of Frontenac.
 - (b) The capture of Quebec, 1759.
 - (c) The causes and results of the rebellion in Upper and Lower Canada, 1837.
 - (d) The circumstances and events leading to the confederation of the Canadian Provinces in 1837.
2. Explain the circumstances which led to the building of (a) the International railway, (b) the Canadian Pacific railway.
3. "During the second period of colonization (750 B.C. to 550 B.C.) the Greeks spread their settlements over a large part of the known ancient world."
 - (a) State the motives which led to colonization during this period.
 - (b) Give the location of the chief colonies founded in this period.
4. Describe the characteristic features of the Renaissance in Italy. Explain the part taken by each of the following in the Renaissance movement: Petrarch, Chrysoloras, Leonardo da Vinci, Lorenzo de' Medici, Copernicus.
5. Discuss the effects of the Industrial Revolution on political conditions in Europe in the nineteenth century.
6. State the immediate causes by which each of the following countries was drawn into the Great War: Serbia, France, Belgium, Great Britain, the United States.

7. (a) Describe agricultural conditions in Ireland and the restrictions on Irish trade at the outbreak of the American Revolution.

(b) Write an account of the struggle for legislative independence in Ireland between 1775 and 1785.

8. Shortly after 275 B.C., Rome became undisputed mistress of all Italy south of the Rubicon. Describe the social organization of this territory under the heads:—

(a) Citizens.

(b) Allies: Latin and Italians.

1. (a) What was the extent of the Roman Empire in the fourth century?

(b) Show briefly how so large an empire was held in control.

(c) Describe (i) the Roman villas, (ii) the effect of slavery in the empire.

2. What led to the outbreak of the Thirty Years' War? How did Sweden and France, respectively, become involved in it?

3. Write accounts of any *three* of the following:—

(a) La Salle.

(b) The causes of the War of 1812.

(c) The Washington Treaty (1871).

(d) Lord Durham's Report.

(e) The Saskatchewan Rebellion (1885).

4. "George III was resolved to restore personal rule." State how the king endeavoured to carry out this purpose, and point out the effects of his efforts upon public affairs at home and abroad.

5. Show how the government of Athens developed from monarchy to democracy.

6. What conditions delayed the unification of Italy in the nineteenth century? Show how these difficulties were overcome.

1. Write accounts of the parts played in Canadian history by Frontenac and Sir Guy Carleton.

2. (a) Give the location of each of the following: Liege, Cambrai, Falkland Islands, Antwerp, Vimy Ridge, Jutland.

(b) State any important fact connected with each during the progress of the Great War.

3. (a) Describe the Greek city-state.

(b) Discuss the forces and institutions that made for unity among the Greeks.

4. Give an account of the policies and achievements of Bismarck up to the establishment of the German Empire in 1871.

The nature of the questions is apparent. They are predominantly informational, calling for the reproduction of historical and geographical facts. The facts must have a certain orderly arrangement. They must show coherence, time relationship, and logical connection of cause and effect. That is, they must presumably be well organized in the student's mind with relation to each other.

But, so far as the examinations are concerned, the facts need have no connection with the student's habits, attitudes, ideals, or purposes. Nothing is asked or told of how the facts he knows influence a student's social outlook, his interests, or his ambitions. Whether he is lazy, dishonest, or hyper-conscientious; whether he is planning to be a doctor or a politician or a prize-fighter; whether he has learned his facts over night or has spent all his spare time for months in the library—all these considerations are beside the point, provided he has the information called for. How much the student's attitude and habits influenced and were influenced by his acquisition of information must be a mere matter of conjecture. Under whatever circumstances it was acquired, however it enters into the student's life and character, it is the information of itself that is cared for by the examination questions. The type of behavior tested by the examination is of the narrowest, viz., the written reproduction of information in a purely informational setting.

The Memory Test.

The memory tests of the departmental examinations is an attempt to obtain a uniform standing for rating students from all over the province. "A single standard implies the possibility of defining exactly some unit of measure, a foot, a pound, a calorie, etc., that never varies and that can be recognized and identified," says J. B. Canning in an article on "The Meaning of Student Marks," in the *School Review* of March, 1916. Text-book facts, specifi-

cally tabulated, can be reduced to such a unit of measure. This is what actually happens in practice. "It is impossible to frame an examination paper, with some slight exceptions," says Dr. W. N. Bell, discussing "The Examination Incumbus," "in which mere information will not insure a pass." [1, 148].

Great stress is laid in Ontario upon absolute fairness and equality of treatment of students. This is testified by the conscientious detail of the marking system described in Chapter III. The assumption is that absolute fairness is identical with absolutely impartiality of treatment. But the assumption is scarcely established when we consider the real differences of learning inherent in different students' reproduction of the same information. To give them all equal rating may be impartial but it is scarcely equitable.

Testimony of Examiners' Reports.

Further evidence that the examination questions stress chiefly accurate memory of prescribed text-book material is furnished by the reports of the departmental associate examiners. These reports are published each year by the Department as a guide to teachers for improving their teaching in accordance with examination requirements. The examiners' criticisms of the candidates' answers, therefore, may be taken as representing the practical working standards of the examinations. The following quotations are from the reports of the history examiners for the years 1919-1922:—

"The frequent failure of candidates to answer the questions on the Great War and on Civics would indicate that many teachers had been unable to cover the whole of the work prescribed by the curriculum."

"Answers to questions of a general nature contained much nonsense. This was most noticeable in the questions on Chivalry and Elizabethan Literature. In the latter instance, writers remote from the subject in time and place were often included, e.g., Dickens, Tennyson, Longfellow, George Eliot, Pauline Johnston, etc. This may mean that descriptive sections in the text-book, which are not usually regarded as

'examination material,' are being taught less thoroughly than such topics as war, treaties, acts, biographies, etc., which appear more frequently on history papers."

"There is a certain looseness in the pupils' knowledge of Civics. The Provincial, Dominion, and Imperial Systems are confused to an extraordinary degree. Often such an obvious distinction as that between Premier and Governor-General is more than the pupil seems to be able to make. Definiteness is to be commended in any branch of History, but it is absolutely essential in Civics."

"Teachers should realize, too, that a knowledge of dates, or approximate dates, is often vital to the interpretation of a question. For lack of such definite information in the matter of dates, the American Revolution, the French Revolution, the Great Civil War and the Peasants' Revolt were all frequently given in place of the Revolution of 1688."

Teachers should not too readily assume that pupils know the meaning of all words used in the text or in the class. Frequently the answers showed a wrong conception of 'veto' and other terms seemingly easy. In the question on the Chartist demands, 'Electoral districts' appeared as 'Electrical districts,' or 'Equatorial districts'—not once, but several times."

"There was a great lack of accuracy in locating the places; this may be in part due to the lack of suitable maps in the text-books. The statements regarding the events were also in many cases very indefinite."

"The questions on the War were not well answered. This may be partly owing to the lack of text-books containing a comprehensive account of the war."

"In the answers to No. 3 (b) (on the European War) there is a great lack of definite facts and too much mere sentiment."

"The answers showed also that the students had not always grasped the meaning of great movements such as the Renaissance, and that wrong impressions had been gained of some historical events as a result of outside reading. Many of the students, for example, showed no knowledge of the story of the expulsion of the Acadians other than that gained by reading 'Evangeline.'"

"Many candidates could not locate places like Marathon and Thermopylæ."

"Candidates should be warned against giving incomplete or careless answers when locating places. Instead of writing 'Corunna is in Spain where Moore fought the French,' they should be directed to give some such adequate answer as, 'Corunna is on the north-west coast of Spain. Here Sir John Moore, after a masterful retreat from the interior, gave battle to the French and defeated them. Moore was killed but the British were able to embark safely.'"

"The student without a knowledge of significant dates suffered in question (3). Many gave 1763 as the year in which the American colonies were lost, although that was the first year of the period prescribed for study."

"Many candidates had a hazy conception of the social life of the Middle Ages. Often no distinction was drawn between vassals, serfs or slaves. Possibly this subject is not sufficiently elucidated in the texts in common use."

"A lamentable ignorance of the extent of the Roman Empire was shown."

Thus, the departmental examinations, according to the testimony of examiners' reports, recognize a student's information, but ignore the setting of behavior in which that information alone takes on significance. They single out for emphasis one aspect of mental equipment, thus denying the essential unity of all aspects of personality. They miss the very meaning of learning by failing to evaluate it as a measure of a student's growth.

Relation of Examinations to Life Behavior.

But the advocate of the examination asks: "May we not reasonably infer that ability to use information for examination purposes indicates also ability to use it in a life situation?" We do not know. An examination is a kind of laboratory experiment. The conditions are definitely set and highly specialized. The thousand possible variables that life may introduce are ruled out by the experiment.

For example, the very stating of a question to challenge thought, in itself introduces an unnatural element. In out-of-school life, part of the problem is to find out the questions that must be answered, and this is perhaps of equally great moral significance with the answering of them. In the nature of things, the examinations do not test this quality of moral discrimination of problems. What grounds have we for believing that it is being learned by students?

The conditions of the examination—the nervous strain due to a knowledge that a year's work probably hangs upon the next two or three hours, the rigid regulations, the time limit, the reliance on pure memory—these and other factors combine to mark off the examination from other situations in which the information might be called into use.

To what extent does examination proficiency indicate a student's general education, his ability to fill a business position, to enter the normal school, or to take a university course? Normal schools and universities will subject him to similar procedure, and to that extent the department examinations are relevant to their purposes. But that the universities are themselves dissatisfied with mere examination proficiency in their students is intimated by Professor C. B. Sissons of the University of Toronto, in an article in *The University of Toronto Monthly* of March, 1923, on "Shoving the First Year Back into the High Schools." He says:—

"It is safe to say that no system of matriculation would ever be entirely satisfactory. Certainly the present system leaves much to be desired. We have two classes of matriculants, those who come with pass matriculation or its equivalent, and those who have honour matriculation or its equivalent. Within the last class are the winners of scholarships, many of whom have spent two years in High School after pass matriculation. If it is true that many who enter with pass matriculation have neither the maturity of mind nor the steadiness of character to fit them for the greater liberty of college study and life, it is equally true that not a few of those who have attained honour or even scholarship standing are equally unfit. The products of a school devoted to spoon-feeding are likely to be less well equipped for their studies in a university the longer they remain in school. Too often the examination tests at matriculation, and particularly at pass matriculation, quite fail to separate the student who has learned to think from the student who has not. They are a test of knowledge rather than of power. Many of the casualties of the first year in Arts would be averted if the matriculation examination had eliminated the immature type of student who depends on memory rather than on reason and taste."

Examinations as a Test of Capacity.

According to Professor Sissons, the universities are most concerned that their students shall show capacity for growth. That is, they are interested to know, not so much what information a student has acquired, as what is his power to use it. But the demands of growing life are not the demands of the departmental examinations. We have here two incomparable terms of measurement. It is difficult to see how one can be a satisfactory index of the other.

The claim is frequently made that examinations test certain general capacities of thinking, reasoning, judging, organizing and expressing, that are called for in almost any life situation. The examiners' reports may be quoted again to illustrate the nature of the arguments used in this connection.

"Teachers would do well to take advantage of the school term and final examinations to give their scholars the fullest benefit of the training that these experiences make possible. . . ."

"Candidates should be trained at the outset to begin by reading over the whole question paper. In most cases, this will remove the dread, perhaps unconscious, of the unknown, and it should certainly make less likely the overlooking of questions or of the instructions to candidates found on the paper. The careful reading of the questions will also disclose to the candidate the exact sense of the phrasing used, e.g., a description 'in detail' requires a specific description of each part. Again, careful reading should enable the candidate to decide the length of the answer colled for and, if that answer is to be of greater length than a sentence or two, to plan it in outline before starting to compose it. The Examiners report that the answers of the candidates at the 1920 examinations showed inaccuracies in definition, inaccuracies in description, indefiniteness in comparisons and irrelevancy in the matters dealt with. Candidates would be less likely to make such errors if they were trained to read over the questions in advance."

"By training candidates to exercise due care in the form and arrangement of their answers on an examination, teachers may also improve the candidates' chances of success at the examination itself as well as in the practical spheres

of after life. At the examination, such care in the form of the answers will be an aid to clear thinking and will ensure full consideration on the part of the Examiner. . . ."

"The sense of proportion exhibited by candidates was often poor. They should know that all options within one question have the same value; but sometimes two or three pages will be written on one option and hardly more than as many lines on another in the same question. Often, too, as in the question on the Confederation Movement up to 1867 candidates let their answers run beyond the point specified, and of course, could receive no compensation for this expenditure of time and effort."

"Many of the answers to No. 9 were too long and rambling and the facts were not arranged in proper order. . . ."

"A common weakness in the candidates' answers in the Upper School History was the tendency to write long unnecessary introductions instead of plunging immediately into the discussion of the question asked. . . ."

"In many cases candidates wrote at undue length on these events, thus leaving themselves insufficient time for the other questions. A short answer of four to six lines is sufficient to indicate definite knowledge of the event asked for by the examiner."

There is undoubtedly a certain examination technique, skill in which is essential to success. But is reflective thinking a part of this technique?

Departmental examination questions are not thought-provoking in any real sense of the term. The starting-point of all reflective thinking, says Dewey, is a felt need. To a student struggling with an examination, the need most keenly felt is not, for example, to explain "the effects of the Industrial Revolution on political conditions in Europe in the nineteenth century." His urgent problem is to exhibit a convincing show of wisdom on this subject in ten minutes. The two problems may appear, superficially, to be closely akin, but actually they are far apart. The student's real problem will of necessity govern his procedure. The resources at his disposal are limited to the facts that he can recall under stress of the moment. But he will use them to capacity. Can we wonder if the rigors of his necessity will lead him into disproportionate introductions or so-called irrelevant or trivial details?

They are not trivial with respect to his problem, if they help to pad out a precariously slim answer.

That is to say, the questions asked in a departmental examination are "mock problems" to the student. They result in "mock thinking." They are unrelated to his life and experience. How can they stimulate him to thought?

"General appeals to a child (or grown up) to think, irrespective of the existence in his own experience of some difficulty that troubles him and disturbs his equilibrium, are as futile as advice to lift himself by his bootstraps." [7, 12].

There is less doubt that "cramming" is a kind of examination technique that makes for examination success. Regardless of the wider connections of a student's learnings, regardless of whether or not judgment or reasoning enters into his answers, if he is able to "cram" sufficient facts and to hold them through the period of the examination, he is almost certain to pass. The cramming system has been picturesquely described by Professor W. H. Burnham of Clark University:—

"Equally bad, perhaps, are the habits of study fostered by preparation for examinations. It is mere commonplace to say that in many schools the best preparation for an examination is to have in memory a vast number of details. The student may enter an examination in such a condition of brain fatigue that he would find it difficult to solve a simple original problem; but if he have this plethoric memory of details, he will succeed. A good memory, as Helvetius said, is a phenomenon of order. The normal mind, like a good householder, has its possessions stored away in various closets, drawers, and pigeonholes, or in technical terms, in various association complexes; the student prepared for examination is like the unfortunate man who must move at a sudden alarm and has all his goods piled together at the street door ready for the truckman. Normally much of our knowledge is unconscious. Even what we cannot remember is not wholly lost. Ebbinghaus in his experiments in memorizing nonsense syllables found that even where the memory of a series of syllables was so evanescent that after an hour it could not be recalled, a certain hidden skill persisted unconsciously, so that the same series could be re-

learned, even after the interval of a month, in much less time than a new series. Forgetting is a normal function of the mind. We retain comparatively little that we have learned except main principles, and this unconscious element. The latter, however, is valuable. At the end of the college course a large part of one's acquisition is of this kind; the ordinary examination cannot gauge it, but puts a premium upon abnormal activity." [19, II, 537].

Cramming is inherently wasteful. It involves rapidly forced memorizing for one immediate, limited use. Other uses are simply left out of consideration. If no further opportunity occurs for the exercise of this learning, if it has but few and feeble connections with other activities of life, then the length of time it will be retained will depend upon the extent of what Thorndike calls "over-learning past the point of just remembering" for use at the examination. But the conditions which call for cramming, i.e., a great amount of material to be learned and little time in which to learn it, usually reduce this learning to the minimum. Of the "knowledge functions" to which belong memory of facts and ideas as contrasted with mechanical skills, Thorndike says:

"They also manifest under ordinary working-conditions very little danger of over-learning, but much of under-learning—that is of establishing the constituent bonds so feebly that moderate disuse deprives them of any serviceability intrinsically, or as preparation for other similar bonds, or as material for selective thinking." [28, II, 233].

Further, cramming is more than likely, because of the strain involved, to be attended by dissatisfaction, which will set up "tendencies to neglect," and so hasten the weakening of learning. Thus the capitalization of experience, which is growth, is prevented.

Is not the examination frequently a test of a teacher's rather than of a student's capacity? For instance, one phase of examination skill is being able to foretell "what will be asked,"—a skill in which teachers are notably more proficient than

their students. Type questions soon come to be known, and the clever diagnostician can tell within a fairly narrow range what parts of the subject matter he would do well to attend to. Do these selections represent critical judgment as to the important features of a topic, or are they mere shrewd guesses as to the habits of examiners? When an examination is set upon the material of a given textbook, as it is in Ontario, the problem of forecasting is considerably simplified.

"Under the present system, a poor candidate prepared along narrow lines may do better than a good candidate who knows the work much better but fails to cover the whole paper. Cases are known where the latter failed and the former passed," said Dr. S. Silcox of the Stratford Normal School, addressing the Ontario Educational Association in 1922 on "The Need of a Better System of Examining." [55, 1922, 141]. This is a serious indictment. A system where limited or sketchy information may fill the requirements better than fuller knowledge surely puts a handicap upon broader and richer learning.

Whether skill in examination technique indicates sheer rote memory, power of reasoning and reflective thought, undesirable habits of study, or "capacity" to make lucky forecasts, must, in uniform examinations conducted on the scale of the Ontario Departmentals, be largely a matter of conjecture.

"In subjects like political history or literature, it appears extraordinarily difficult to set questions in papers of the ordinary three-hours type which shall come clearly under the heading of capacity tests; whereas in many subjects the questions may be either knowledge tests or capacity tests, and most written examinations papers include questions of both types." [11, 12].

IV.—Influence of the Examinations upon Teaching.

Consider the examinations as a teaching agency. To begin with, their educative influence must be

wholly confined to the work of preparing for them. The actual growing value of an experience depends on one's ability to check up mistakes and estimate success. This is reduced to a minimum in the departmental examinations by the fact that students receive only a generalized pronouncement on their success or failure. As Dr. Amos told the Ontario Educational Association in 1922:—

“Any system of final examinations, no matter how perfect its technique, is like a post-mortem examination. It comes a little too late to be of any use to the patient. It may confirm the judgment of the good teacher, and check the judgment of the inefficient or dishonest teacher. It may protect the pedagogue from the wrath that follows hard upon the footsteps of justice, or provide the goat upon whose back the negligent student may lay the burden of his sin. It does many things admirably, but comes one year too late to be of any use to either the teacher or the child in the educative process.” [55, 1922, 145].

If the examinations test chiefly temporary memory of facts in a purely factual setting, it is reasonable to infer that the teaching of the schools will be directed chiefly to the same kind of learning.

... “The character of an examination determines in a great measure the character of the teaching adopted in preparing candidates for that examination; those subjects to which most marks are assigned will receive most attention in the schools, and vice versa,” wrote J. E. Hodgson, High School Inspector in Ontario in his report of 1884. [66, 186]. Mr. Hodgson was urging that certain subjects should be added to the departmental examination list to ensure better teaching. But if we follow out the logic of his argument, in the light of a closer scrutiny of the nature of the examinations, should we not urge that teaching be freed from their influence?

Teachers have no doubt been driven to emphasize this internal organization of facts as a necessary memory device. They are impressed with the tremendous difficulty involved in remembering an

encyclopedic mass of historical material, most of which is meagrely connected with a student's life. They hope to make good the lack of psychological connection by stressing the logical. Their predicament is well described in an address to the Ontario Educational Association in 1923, by a high school teacher who was discussing the revised history courses. He said:—

“Our New History Courses are all on the topical method. We all admit the many excellencies of such a method, but it has its disadvantages. Hinsdale claims that it tends to destroy what might be termed the balance in history. ‘Its use *alone* will in a great majority of instances result in the pupil's having unconnected information. Its exclusive use in the secondary school is absurd.’ . . . I think Prof. Morrison, last year, gave the corrective. Have the pupils learn a mechanical outline first. Then give your romance, concentrate on your topic. Have the pupil memorize the rulers of the Stuart period, of the Hanoverian period—with dates—yes. The other day a teacher who was feeling this lack of connection in his use of the topical system said he thought he would have his pupils learn the list of prime ministers at the back of the new book. It would not be waste of time to have the pupils learn a list of main events of George III's reign, or of Queen Victoria's reign, even if some of the events do not belong to any of the topics selected.” [55, 1923, 368].

It is true that the examiners' reports give advice on certain habits and attitudes which teachers are urged to work for. For example:—

“Students should be encouraged to make more use of current newspapers and magazines, especially those published in Canada.”

“The accounts given of President Wilson showed in several cases a spirit of unfriendliness to the United States, which is greatly to be regretted. In view of recent events and also of the fact that American histories are being revised at the present time, it is very desirable that our boys and girls should be taught to cultivate a spirit of friendship and good-will towards our neighbor.”

“The answers show too little evidence of reading outside the text-books.”

“Teachers of history should read as widely as possible and should encourage research work on the part of the students. Attention should be given to building up a good school library.”

But clearly these recommendations have to do with behavior outside the possible range of the examination questions. It is impracticable, for instance, at least under our present system of examinations, to assign marks to degrees of friendliness towards the United States, or to the reading habits of a candidate. So long as the departmental examination controls our schools, our objectives fight a losing game. We may quote as evidence the testimony of Mr. G. F. Rogers, Inspector of High Schools in Ontario, in his report for 1920:—

“One hesitates even to suggest the adding of one jot or one tittle to the already overcrowded High School curriculum, but there certainly should be some place on the time-table for the discussion of current events. It is a rare thing to find a daily newspaper in the school library, and scant attention is paid to History in the making.

“Quite recently I made some investigations in two schools where the pupils were above the average in general intelligence, and in knowledge of the prescribed studies, and the results of my investigations were somewhat amazing. The students knew all about the Treaty of Paris but nothing about the Treaty of Versailles. They knew who founded Quebec and Montreal, but few could name the Premiers of Great Britain, Canada, and Ontario. I found that only three or four in each class ever looked at the newspapers, and some of these were candid enough to confess that the only news in which they were interested concerned ‘Mutt and Jeff’ and the domestic affairs of the ‘Jiggs Family.’ [66, 1920, 59].

Beyond a doubt many teachers in our schools would resent the charge that their teaching is largely controlled by examination requirements. They would claim, and justly, that they lose no opportunity to connect school learning with life situations. At every turn they seek vitalizing, motivating connections for the history or geography or science lessons, so that learning may be set in a broad and useful context. They strive in all their teaching to build information into attitudes, ideals and purposes.

But the very fact that these connections must be deliberately sought makes them adventitious and

secondary. The examination requirements do not strive for recognition. They are inherent in the nature of the school situation. Which set of influences will be stronger is scarcely open to doubt.

For example, suppose a person is interested in understanding the bilingual school problem in Ontario, and in search for information on this subject, he studies the terms of the British North America Act. Subsequently, any problem concerning French and English relationships in the province would be very likely to call this act to his mind. His knowledge of it might send him for further information to the other acts in the making of the Canadian constitution. Suppose, however, he had learned these acts in an historical series of legislative measures when he was "covering" the history of Canada. The chances are slight that he would recall them as having any significance in connection with bilingual schools, even although his attention may have been called to that feature and the "association" made at the time he studied it.

If the learning of the schools is set in a context of connections limited by examination requirements, it may be expected to come into action in similarly limited situations. The probable occasions of its recall are few. An examination is the proper stimulus, but few situations in life resemble an examination. Consequently, through lack of exercise such learning falls rapidly away. Because of its few and feeble connections, it has little chance of contributing much to the enrichment of life.

Examinations and Attendant Learnings.

But although the departmental examinations may deflect the teacher's attention from the development of ideals, attitudes, purposes, and habits of overt behavior that constitute character, yet we cannot assume that these "attendant learnings" are simply being left out. Rather they are in all probability growing wild.

Consider, for example, the matter of a student's attitude to a subject of study. If he is not building a positive interest in history, he is building indifference or dislike, either of which is undesirable.

The Ontario examination system has more than once been accused of giving students a permanent distaste for history. That charge was made by M. W. Althouse, then Principal of Rectory School, London, Ontario, in an address to the Ontario Educational Association in 1922 on *The Place of History in the Public Schools*.

"That a very large majority of Public School pupils would say they do not like history, I fully believe, and if they declared that they liked it, I should doubt either their sincerity of the orthodoxy of the method by which they had been taught it. . . . I regard the formation of such a distaste for history as one of the most serious injuries a teacher or a system can inflict upon our young Canadians. That such a distaste for the subject really exists is certified by both Public School teachers and High School and Collegiate teachers who endeavor to present history to secondary school pupils." [55, 1922, 47].

Mr. Althouse connects this dislike with the conditions of the examination system. He deals specifically with history in the elementary schools, but high school teachers may find his argument not inapplicable to their work.

"I contend that if once teachers realized the excellence of the subject, and the necessity for its being treated as a most useful part of public school education, and if the examinations were made a *test of attitude towards History* rather than a test of the *quantity of raw data* in a pupil's mind, no serious objection to its being included in 'Part II' (the written high school entrance examination) could be found." [Ibid].

The opinion of one teacher or many is not sufficient evidence on which to establish the truth of this contention. Objective evidence might be furnished by statistics as to the number of students who go on from high schools to study history in the university; or the number of history books compared with

other books borrowed from the public libraries; or the number of history titles appearing on the list of publishers' best sellers. But in the absence of such objective data, the hypothesis may be offered that, considering the mental effort required to master the history material for departmental examinations; considering that the material calls for an extraordinary feat of rote memory, because of its meagre connections with the every-day habits of boys and girls; considering the amount of poor work and consequent dissatisfaction, as judged from the examiners' criticisms,—in all probability the criticism of Mr. Althouse is well founded.

Inspector J. A. Houston in his report for 1920, emphasizes the importance of wider learnings as follows:—

"The best service teachers can render to their pupils and to the state is to train those pupils in thinking and acting for themselves, to encourage in them the spirit of investigation which exists in every normal mind, to impress on them that what is worth having is worth working for, and to make their attitude towards life one of self-reliance, not dependence on others. We are doing too much for our pupils that they might very well do for themselves if given the opportunity. Why not train them to use the tools which lie at their hand, train them to use their text-books, give them the library habit, stimulate the idea of original research on their part, so that they will not be satisfied to memorize notes which have been dictated to them? Such a course of training would produce a strong, independent, self-reliant body of men and women who would be in the future leaders, not followers, in the state, and who would be in the meantime even more successful in their school examinations than those who meekly and willingly submit to the filling-up process. The more we can cultivate the spirit of independent investigation, the better will be the finished product sent out from our schools." [66, 1920, 45].

But how can teachers train students to think and act for themselves when they are under daily obligation to train them to remember and act for the departmental examinations? How can the spirit of original research be made compatible with a thorough reliance upon text-book material? It is

not that teachers are not urged to follow broader methods, taught them to a limited extent in the universities, convinced of their worth by the whole logic of events. But they are helpless in the invincible grip of the examination requirements. And their own souls are dismembered in strife between the good that persuades and the evil that compels, so that it is small wonder if they, too, at times, come to share their students' distaste for history.

What ideals, attitudes and purposes making for good citizenship are being taught by the examination? Whatever the demands of citizenship of another day, to-day at any rate citizenship means social interdependence rather than crass individualism. Civic education is not summed up in the ability to vote, even to vote intelligently. Far more imperative is the ability to live with other people in relations of mutual trust, co-operation, sympathy, and friendliness. This point of view was expressed in Chapter I. Yet our system of competitive examinations is still stressing individualism. Class-room work, and especially examinations, emphasize all that makes for non-co-operation and rivalry. Whereas every normal situation outside the class-room puts us constantly into positions of dependence upon others for information, for advice, for help in an undertaking, for co-operation in working out a project, the examination in contrast says to a student, "You must stand or fall absolutely on your own resources. The prize is to the swift and the race to the strong, and the one unpardonable sin is that you should help one another." If this is the spirit of citizenship that we are producing in our schools, can we wonder if the spirit of citizenship outside the schools is not much different?

It is open to consideration whether or not the examination system, through its demand for textbook information, does not indirectly and unintentionally foster in students and teachers blind uniformity of opinion, unquestioning acquiescence to

authority; readiness to adopt unchallenged the point of view of one man or one book; a spirit of passive receptivity to ideas; inculcated loyalties depending on the emotional grip of early fixed and uncritical beliefs. Still further, the argument would not be difficult to establish that the examinations make success through cheating not only possible, but comparatively easy.

The catalogue of undesirable attendant learnings which the examination system would seem to foster by ignoring, might be continued at some length. This inquiry can do no more in this respect than to point to a very significant field for investigation.

“Motivation Value” of Examinations.

One of the most frequent arguments in defence of examinations is that they motivate students' and teachers' work. This position is taken by W. S. Monroe in an article on “Written Examinations and their Improvement” in the *Historical Outlook* of June, 1923:—

“Although the written examination should not be defended merely for the reason that it furnishes an effective motive, it must be admitted that this motive makes a special appeal to many pupils. In so far as possible, the pupils should be motivated by the intrinsic values of the subject matter. However, these values are frequently remote from the life of the student, and it is necessary to resort to motives which make a more immediate appeal.”

The evil results of working for tangible rewards were felt in Ontario during the period of “Payment of Results” (1875-1882), when legislative grants to secondary schools were distributed on a basis of attendance, number of days of school session, and proficiency of students at a departmental examination, the Intermediate. The plan was abandoned, “having demonstrated in Ontario as elsewhere its baneful power to defeat the main object of education,” wrote Dr. W. N. Bell. [1, 14, 7]. “Not the least of the evil influences flowing from the principle

of payment upon results of a written examination, was that of fixing in the public mind an unwarranted respect for written examinations in general to the exclusion of any other means of appraising attainments." [1, 158].

Have we really abandoned the system of payment by results so long as we depend upon the appeal of examination success as a chief means of inducing students to work?

"The tendency toward abuse of examinations when made the conditions for granting rewards seems to have been recognized when the rewards were of the natural sort accruing to the school but neglected when of the nature of diplomas and certificates granted to the pupil, and prestige accruing to the school." [59, 510].

Summary.

We must ask, then, if we are acting wisely when, in the interests of a uniform system we continue to allow our school curriculum and teaching to be governed by considerations that fall so far short of our real educational objectives.

The departmental examinations hold a central place in the high schools of Ontario. The system has been highly perfected, and no pains and expense are spared to conduct it efficiently and justly in every detail. And the results, judged by the standards of the examinations themselves, are doubtless fairly satisfactory. The departmental examinations may be said to be quite successful in testing students' information, sifting and classifying students on an information basis, and inducing students and teachers to work diligently towards examination results. The system must indeed be credited with a high degree of thoroughness in achieving these objectives.

Yet, when all this is said, the departmental examinations are conceived in terms of an inadequate psychology that does violence to the nature of learning and the work of character building. Judged by the standards of the theory of education

as growth, they are seriously lacking. The temporary memory of factual information tested by the examination questions gives little or no intimation of how the student's knowledge affects his character and conduct. It affords no reliable guide to his intellectual capacities. Moreover, there are strong indications that the preparation required for examinations indirectly cultivates unprofitable habits of study, unwise methods of teaching, and undesirable attitudes to learning and to life. Can we then afford to trust that our students' growth will result by happy chance, while our schools are controlled by an examination system that leaves out of account its essential conditions?

The fact is fairly generally admitted as true and widely accepted as inevitable that the subject matter of the schools lacks inherent value which would create joy in the work itself; that it must therefore be "motivated" by examinations. The next chapter, therefore, will examine the function of subject matter. Both because of its relation to examinations and in its own right, the problem has an intimate bearing upon the aims of education.

CHAPTER VI

COURSES OF STUDY AND SUBJECT MATTER

I.—The Problem.

The question of motivation of school work raises an issue regarding the function of subject matter from the point of view of education as growth, that may prove fundamental in the problem of curriculum in Ontario secondary schools.

In Ontario, the subject matter of high school courses is outlined in a syllabus, and prescribed by the Department of Education, with reference to the aims of the respective courses. In the special courses of the vocational schools, the selection is made by local committees.

The subject matter of the schools is generally taken to include a body of facts and principles recording human experience. It comprises largely accounts of solutions of problems worked out from time to time by society in its efforts for better living. Gradually the accounts have been logically organized and the arts and sciences built up. This knowledge constitutes a social heritage, which it is the specific function of the schools to pass on to each generation. For to be in possession of solutions to past problems makes it possible, practically speaking, for each generation to start where the last left off. The school curriculum is a short cut to the experience of the race.

With the accumulation of experience and the growing complexity of social life, the amount of subject matter becomes very great and its selection becomes increasingly difficult. We meet the situation as best we can, by adding to the curriculum here, dropping off there, as social demands shift and change. But, as a rule, for reasons that have their

roots deep in human nature, we add more than we drop, with the unhappy result that the curriculum is in a perpetual state of congestion. From time to time, when the pressure becomes unbearable, comes the counsel of despair: "Away with fads and frills,—back to minimum essentials." Then the chief problem of the curriculum appears to be how to determine what are fads and what are essentials.

Ontario knows this problem well. The recent reconstruction of curriculum was undertaken to "relieve the burden," and the committee's success in that respect is acknowledged. But the question arises whether the quantitative approach to the problem is the only one. Prof. Dale of Toronto University, addressing the Ontario Educational Association in 1923, looked towards a different kind of solution.

"I hope to live to see the time when the curriculum will be modified, not by the addition or subtraction of subjects, but by revolution in the method of teaching. The three R's might as well be taught in useful ways as futile." [55].

Selections on subject matter must forever remain a pressing problem so long as knowledge increases, and social values change. But selection is ultimately determined by use. Therefore, any study of curriculum would seem inevitably to drive back of selection to the question of how subject matter is to be used in the educative process of passing on the social heritage.

This aspect has largely been overshadowed in Ontario by that of selection. We have tended to take the process for granted. The work of Herbart in introducing psychological study into educational theory made, in its day, a profound impression on our schools. But the subsequent tendency has been to rest upon his findings, without realizing the steady progress in educational psychology that his pioneer efforts made possible.

II.—The Learning Process.

An analysis of a simple instance of learning may be helpful in throwing light on what takes place when subject matter is learned. A recent writer¹ on "Subject Matter and the Educative Process," describes a normal case of learning as follows:—

" Hitherto mother has laced up Johnny's shoes. To-day he undertakes to do it himself. Note that this experience includes certain old and familiar aspects and, besides, certain new ones. The old are very numerous, among them, the living, working relationships of mother and child, what to do with shoes, what should be done with shoe laces. Once each of these was new—and then perhaps the object of attention—but now they are old, familiar, taken for granted, habitual, and easy. The new to-day is that Johnny and not mother shall lace up the shoes. The old is present and available as setting. Johnny knows in general that laces go into the holes, that they are then tightened, and finally tied into a knot. He has also a certain cunning with his fingers, he can pick up the metal-pointed end of the lace, he can put this point into the hole, he can pull the lace. It is worthy of note that Johnny has already made some progress into the three learning aspects of the situation. Already some time ago he saw the possibility of lacing his own shoes, only it was then but a distant possibility, now it is immediate. Inclination had lagged somewhat behind insight, but that too has been stirring until to-day it becomes actual. Then, too, he already has had for quite a while some of the powers needed for lacing. To-day all three aspects are to take on a new phase, and to-morrow (or the day after) they will be still different. When the learning is quite complete, the sight of unlaced shoes on feet will start all three going effectively. Otherwise something will be wrong.

"Now Johnny begins, and hard work it is. Mother has to help him at various points. His attention is more minutely and definitely directed than ever before to the requisite regularity of lacing and tightening. Moreover, actually putting the laces regularly into all those holes is quite different from seeing it done. Most there is of Johnny gets to work, even to the sweat glands on his forehead. The next day another round of trial and teaching and Johnny can 'lace up his shoes.'"

¹ Dr. W. H. Kilpatrick, Professor of Education, Teachers College, Columbia University. *Journal of Educational Method*, April 19, 1923.

Johnny's learning grew out of his need. He found himself hampered by lack of knowledge in something he was doing—viz., putting on his boots himself. The difficulty took his attention. He sought a means of meeting his need. His efforts were purposeful. We say he was *interested* in learning to lace his boots when he saw a definite connection between the lacing and his own desire. Recognition of a need and active purposing to meet it are inherent in the learning process. The active functioning of the learner was ignored by Herbart, who attended chiefly to the teacher's work of building up a body of learning in the student's mind.

The satisfaction that Johnny felt in meeting his need was an important factor in fixing his learning. An earlier psychology tended to overlook this factor and to emphasize mainly effort and repetition. We are familiar enough in ordinary experience, however, with the converse principle. How slowly we make progress in learning by mere practice when a task is distasteful or boring! Johnny's mother wisely helped at critical points and did not allow discouragement to overwhelm him.

The subject matter of this piece of learning consisted of certain elements of boot-lacing. It included eyelets and their arrangement, laces and their ways of being crossed and pulled and tied. There were many things about boot-lacing that Johnny had learned before with which the new learning made connections. These things had once been subject matter of learning. There was much of possible future interest about other kinds of boots and laces. But this was only *potential subject matter*; it did not belong to the purpose in hand. In all probability, Johnny tried a number of moves that he rejected. But he finally worked out a solution to his satisfaction. That solution was the *subject matter of learning*, and its pertinence to Johnny's need was the basis of its selection.

That need was the main concern in the beginning. The learning was incidental, although for the time it became focal in attention. Pleased with his success, Johnny probably will delight to use his learning until it becomes perfected and fixed as a habit in his nervous system. Thus Johnny's need and purpose brought him into possession of the subject matter of boot-lacing, which was a part of the experience of the race.

If we compare with this illustration any instance of out-of-school learning that occurs under normal conditions, we shall be able to discriminate the same steps as appeared in the child's learning to lace his boots: the activity already under way; the hindrance or difficulty and the sense of need; the purposeful search for a way out; the trying out and final adoption of a solution; and the resuming of the interrupted activity by means of the newly acquired learning. Subject matter is sought as a means, is selected, tested, accepted, and incorporated into action, and thus learned.

If now we compare with the normal learning process any ordinary instance of learning in an Ontario secondary school we find striking differences. Our whole school procedure is built on required courses of study "to be covered" and prescribed subject matter "to be mastered." Instead of a student's sense of need of lessons to be learned, we find the teacher's work of "motivation." Instead of a student's search for means to carry on some interrupted activity, we find the Department's prescription of courses and subject matter, with reference to "the needs of the University or Normal School." Instead of a disciplinary process of trying out a possible solution to a problem, correcting it, trying again, keeping at it and finally winning through to success, we find drill on the material of a text-book, and stress on concentration, effort, and "a thorough mastery of the subject." In the latter case, learning is essentially memorizing a formulated solution to

what was once a problem for someone in the past. Instead of the student's applying his learning to carry forward an interrupted activity, we find teachers or curriculum-makers pointing him forward to a possible future activity, in which his present learning will probably be of use.

The differences in the two situations arise from fundamentally different interpretations of the meaning of subject matter. Subject matter was described at the beginning of the chapter as a fund of organized race experience that is available for the improvement of living. In the light of Johnny's learning, this available fund might more accurately be described as potential subject matter, only. Subject matter of actual learning in a normal situation is a selection from that fund, of material to be used specifically in the enrichment of some present experience. Subject matter in the schools is material to be learned, selected with reference to its past usefulness and probable future usefulness, as judged in Ontario by a joint committee of the Department, the Universities, and secondary schools.

This disparity is by no means peculiar to Ontario. Our schools are simply in line with the academic traditions everywhere concerning subject matter and the learning process. The vocational schools of Ontario have been in the line a shorter time than the high schools. Consequently they are less bound by the tradition. Their courses of study are chosen with regard to the needs and interests—if not specifically of the student—at least of the community to which the student belongs. There is comparative freedom of choice. Examinations have not the influence that they have in high schools. But the academic tradition is recognizable even here. Vocational schools are not entirely free from the conception that learning can be profitably pursued apart from its recognized contribution to life activity. They have not entirely escaped the emphasis on subject matter as an end-in-itself, im-

plied in courses of study "to be covered" and material to "be mastered."

Yet children have always learned in school more or less, better or worse. Their conscious needs have been in large part ignored. "Effort" and "discipline" have held instead of the inherent drive of interest. And, it must be admitted, the result has often been strong characters, equipped with valuable learning; possibly, in part, because of what the schools did; possibly, in part, in spite of their efforts.

This apparent success of present school methods does not mean that Johnny learns to lace his boots by one set of psychological laws, and later learns history in school by another. It may mean only that children will learn under very difficult conditions. It may offer some explanation of why our schools do not accomplish infinitely more than they do, considering the amount of time and money and earnest effort devoted to them. It may be a revelation of colossal waste in our educational system. The nature of that waste may be indicated by examining several features of the total teaching-learning situation that are ignored in ordinary school procedure.

III.—The Traditional Treatment of Subject Matter. Deferred versus Present Values.

The secondary schools of Ontario, as at present constituted, are chiefly concerned with boys and girls as potential men and women. The social heritage of knowledge handed on by the schools has been selected, not with reference to the needs and purposes of boys and girls, but because of its usefulness for future citizenship. It has proved of great social value in the past, and educators are convinced of its essential worth in this respect. If students do not now see the importance of their school work, yet some day it will surely come into its own.

But in our concern that boys and girls shall be prepared for citizenship, we apparently overlook the essentially cumulative and integrative character of the life process. The only trustworthy preparation for future complete living is complete living at each successive stage. Worthy adulthood calls for joyous and purposeful boyhood and girlhood. Complete living now undoubtedly includes looking forward to future plans. But this forward look directs present activities. For the present is really all we have to work with. When we think solely of to-morrow, we rob to-day of its meaning. We are forever in pursuit of life, and never really succeed in catching up with it.

Childhood and youth are not best thought of in terms of incompleteness. They are incomplete only with reference to an adult standard. Taken by themselves, they have their own characteristic fulness. They have indeed certain resources beside which the strength of adults is weakness. To ignore the claims of youth's values, then, in the interest of adult values, is a species of pedagogical arrogance, that would subordinate life itself to some ulterior purpose. In youth, as in maturity, life is its own excuse for being.

Is it unreasonable to seek in the social heritage of subject matter, material that is of present worth in enriching the lives of boys and girls? If so, we must be badly handicapped in efforts to lay the foundations for future citizenship.

Youthful Purposes Neglected.

The present ambitions of boys and girls are not thought worthy to be taken seriously as a basis for shaping our educational policy. They are of course enlisted where available. Some adolescent drives may be cared for by the school through extra-curricular activities. But for the most part, courses of study and adolescent "real life" appear to run in separate channels.

The argument is that we could scarcely expect much of the necessary material of the school courses to have an immediate appeal to boys and girls. Would they on their own initiative, set out to study, for example, "The Development of the Government of Canada," or "Political Developments in British History, 1688 to date," or "The Decline of the Athenian Empire," or "A brief survey of conditions at the beginning of the modern history period (1789)"—all of which are compulsory topics of the history courses?

In assuming the inherent triviality or irrelevance of youthful interests, have we been adequately informed of what those interests really are? There has yet been remarkably little study of the characteristics of adolescence, and such as there have been are mostly physiological. Perhaps we might find our working capital not so meagre as has been supposed.

"This interest in adornment, 'showing off,' widening consciousness of social relations, altruistic conduct, aesthetic appreciation, religious conversion, and desire for travel, to cite instances, represent varied and characteristic mental experiences of adolescence. . . . [Guy M. Whipple, 20, 259].

"Compared with the relatively self-centred life of the child, the life of the adolescent is shot through with consciousness of self as related to other persons. His outlook is hetero-centric, not ego-centric. His behavior has constantly a social reference. He considers himself in relation to others.

"It needs no argument to show how important these social tendencies are from every point of view. . . . The skillful secondary school teacher sees in them both the cardinal problem of adolescent moral training and the means whereby if at all, this training may be realized." [20, 272].

Have we sufficiently explored the possibilities of development latent in even apparently trivial and transient youthful interests? The indispensable function of the teacher is to direct trivial interests into lines that give most promise of abiding and increasing satisfaction. If they are not so guided,

youthful enthusiasms will either run wild and spend themselves fruitlessly, or they will die of neglect. Why are middle age and old age as a general rule so dull and spiritless, so lacking in resources, compared with youth? How far must a mistaken educational policy that discounts the lead of youthful drives in the selection of subject matter, be held to account for that unparalleled waste?

Why must we necessarily assume that a hiatus exists between the interests of youth and those of the adult world? Normally boys and girls live in the same social medium as their parents and their parents' friends. At home their activities are not completely divorced. One commonly recognized characteristic of growing boys and girls is their desire to share in the affairs of grown-up people. They keenly anticipate the years of manhood and womanhood. In the natural order of development, their interests gradually approximate those of adult society. Moreover, adults need to be in touch with youth for their own renewing. Sharing of interests is highly desirable from every point of view. Cleavage between them is a tragedy in every generation. Cannot education help to lessen it?

It cannot be too often repeated, however, that the starting point of all learning is the active interest of the learner. Starting where he is with his present purposes and on-going activities, we seek to lead him out in directions that we judge hold most promise of continuing and increasing worth in life.

Doubtful Use of the Factor of Interest.

Our schools generally recognize that a sense of need or interest, readiness or attention to subject matter, is desirable for learning. Therefore, inherently uninteresting subject matter must be *made interesting*... A good teacher can make any subject interesting, we are told. We rely on 'motivation' in various aspects; on "sugar coating" the material

with devices; on rewards and punishments; on academic honors; on the requirements of the departmental examinations.

An extract from the report of one of the High School Inspectors for 1920 illustrates this attitude toward interest:—

“The teacher of History has my deepest sympathy. To a few teachers, the power to teach History is a gift; most teachers, however, must acquire it by patient, laborious study. The text-book contains but the dry bones, which the teacher must invest with life. To supplement the text-book and add touches of interest to his teaching, he must read beyond the limits of the text-book. The Specialist with nothing but History to teach, can do so. But the great majority of History teachers are not specialists, but general teachers, often with little experience, teaching in the small schools, and overburdened with the multitude of subjects they have to teach.” [66, 1920, 52].

We have not been careful to inquire what kind of interest is thus secured. First, is such interest lasting? If it depends upon the personality of a good teacher, or the urge of a passing crisis, may it not be expected to evaporate when these factors no longer operate? If we are chiefly concerned with interest as a means of holding students' attention, the issue is not important. If only interest burns long enough to insure learning, then all is well. But if we are more concerned with building in our students abiding and growing interests, the issue becomes vital.

How far is interest legitimate that depends upon a teacher's personal attractiveness? The personal factor is undoubtedly a strong force in every social situation. All through life many of our interests take shape because of individuals associated with them. This is a fundamental characteristic of our social nature. Secondary school students are probably peculiarly sensitive in this regard. They are greatly influenced in their attitude to their work by the teacher's personality.

“The adolescent wants to make a name for himself, to feel that he has the good opinion of parents, teachers, or

schoolmates. The indefinable something we call 'Social pressure' has now a real significance. What the adolescent eats, wears, says, and does is largely determined by what he thinks other people will approve. Boys and girls do this and that because 'it is the thing.' Needless to say that this tendency may prove a powerful lever in the hands of the teacher." [20, 274].

But is it not desirable that, with advancing maturity, we should become less and less dependent upon this factor of attractive personality as the main determinant in our interests and our loyalties?

The question has a rather far-reaching moral significance. It contains a paradox. Social opinion creates moral standards. The essence of morality is a sense of belonging to the community and living in cheerful accord with its standards of thought and conduct. Yet we are sometimes called upon to make a moral choice which goes counter to social opinion. Sometimes morality cuts through conventionality. Then a man is influenced by a greater society than the immediate one that passes judgment upon him. He is acting on the social approval of society as he would see it emerge, rather than society as it appears in some present limited segment. We desire to develop in our students habits of thought and action that will take what strengthening they can from social approval, but that can also, if need be, dispense with social approval and face the world alone.

With regard to a teacher's personal influence in developing interests, it would be safe to say that he uses it wisely and constructively when students are led out from a purely circumstantial or personal attraction to a subject, to lay hold upon its inherent value for them. Is a policy of motivation of subject matter to be relied upon to achieve this result?

Again, interest may be induced in some otherwise uninteresting work by the drive of immediate necessity to pass an examination or avoid a penalty. But again we must be clear as to the nature of the interest here operative. Interest in avoiding a pen-

alty or winning a reward is not the same as interest in work for its own sake. Indeed, interest in avoiding dissatisfaction is quite compatible with strong dislike for the situation that necessitates this painful effort.

That students sometimes come to take a direct interest in a subject that was at first quite distasteful, is one of the commonest arguments in defense of existing curricula. It is well illustrated by an address by Professor John MacNaughton of the University of Toronto, before the Ontario Educational Association in 1920 on "Some Educational Fallacies":—

"He (the teacher) will not too seriously consult the present tastes of his pupil nor avoid subjects of instruction which he does not immediately and naturally, take to with much avidity. The initial discrepancy and distaste may be no bad sign. It may on the contrary mean that this particular study is indicated as specially valuable for the needs of this particular pupil. The fact that it does not give him immediate pleasure is no proof that it is not quite within his ultimate reach, or that he may not come to like it later on.

"A great many of our tastes are acquired tastes. The permanent value of a study and the permanent pleasure derived from it are often in direct proportion to the reluctance of our first step into it, the resistance of its topmost crust." [55, 1920, 365].

Professor MacNaughton's claim that secondary interests sometimes brings forth a primary interest in the work itself, is doubtless frequently substantiated in fact. Yet for every happy instance of such kind that might be cited, it would be possible to match with it another of a student who, having passed an examination with credit, has turned his back on the "stuff" with a shout of joy to be through with it forever. Speaking broadly, it may be fairly questioned whether the earnest efforts of our teachers to interest students in school work have resulted in wide-spread and lasting devotion to the pursuit of knowledge, on the part of the majority of high school students. In depending largely on induced secondary interests, we are taking tremen-

dous chances. We need to consider whether observed results justify the risk of building antagonisms rather than devotion to learning.

Misinterpretation of the Nature of Interest.

May not our comparative failure to create wide and permanent interest in learning be due to a misinterpretation of the nature of interest? "Interest resides in the organism, not in the subject matter." Interest is created, as was Johnny's, when the learner discovers that the subject matter relates to his need. If no such relation exists in actuality, any efforts to create interest will be abortive. The teacher's work is to assist in the process of discovery in such a way that the satisfaction of the student's current needs lead him on to wider needs, and hence to expanding interests. "The work of education is the creation of needs."

Inherent interest is the manifestation of whole-hearted purpose. The effect of purpose in learning has been referred to in previous discussions of vocation and examinations. Any purpose clearly felt and whole-heartedly pursued, as was Johnny's when he learned to lace his shoes, commands a maximum of directed effort. Purpose makes for initiative, for resourcefulness in thought and action. It gives a standard by which to judge one's success or failure. Hence it provides for learning from experience. On the other hand, when subject matter must be *made interesting*, the compelling, directing force of purpose is obviously not fully operative. Or if the purpose of learning is secondary to the purpose of avoiding a penalty or succeeding in an examination, the primary interest will be the real governing influence. Just so much work and of such kind as will "get by," will answer that purpose satisfactorily. Have we ever fully reckoned the tremendous driving force that might result from following a programme of studies that boys and girls recognize as inherently worthwhile?

Frequently, the nature of interest is misinterpreted in an appeal for a more rigorous moral discipline in school work. Life is not mere pursuit of interests, we are told. It is full of hard and uninteresting work that must be done. Therefore, we are not serving students well unless we train them to undertake and carry through work lacking in inherent interest. They must learn concentration and effort. They must be willing to subordinate present satisfaction to a more remote good. It is urged that doing difficult things just for their very difficulty will help to develop an essential moral fibre.

Professor MacNaughton continues his argument in this strain:—

“And besides, our whole life is or ought to be, one constant facing and conquest of difficulties, that is to say, a constant growth on our part to the fullness of our stature of manhood, and it is poor education in which one is not well broken in and habituated to this strenuous warfare.

“There is one supreme lesson above all others that we must all learn if we are to be of any use to others or get any real satisfaction for ourselves and that is to do our work whether we like it or not. If we have learned to do that at school, then our school has done very well for us. . . . The ideal schoolmaster then will not cut anything out of his curriculum merely on the ground that it is uncongenial to youthful flesh and blood.” [55, 1920, 365].

The contention is sound that we cannot be satisfied unless our students become capable and willing for strenuous efforts. But the moral fibre that makes for effort is constructed of interest. The old controversy over the comparative values of interest and effort in education has dissolved in the light of further psychological knowledge. Interest and effort are seen to be correlative, not opposed. We put forth most effort when we are most interested. Concentration of effort indicates whole-hearted unified interest. When interest is not coordinated with effort, personality is disorganized. The divided self is always the weakened self. Thus we educate for maximum expenditures of effort by creating interests, not by ignoring them.

But needs and interests that contribute to growth must be marked by an extension of what has been called the "interest span." The young child is moved by only very immediate necessities. His interest span is brief. The mature man plans for years ahead. Yet the drive of the future need is to him too a present reality. Only so has it any directive force in his activities.

This extension of range of interests and purposes explains the meaning of "a sense of duty." The urge of duty is the urge of interest, but of interest somewhat far removed and wan. More remote needs are competing with immediate, impulsive ones, with consequent lack of co-ordination of effort. The very fact that one is conscious of "one's duty" and of an effort to hold oneself to the work in hand, in itself testifies to the conflict of divided interests.

"The sense of duty is just the recognition of these more remote interests, without their vivid presence in the imagination. If this immediate appreciation were present it would bring into play the energies of our being, and the sense of duty would be swallowed up by interest. But the fact that there is no immediate appreciation need not mean that these interests are completely ignored. To count them in, to act with reference to them, under such circumstances, is precisely what makes the difference between intelligent behavior and impulse." [2, 90].

Thus there is no conflict between interest and duty, provided we interpret both in terms of a growing personality, that is learning to increase the span of its active interest.

". . . . The insistence on duty does not mean that effort on its own account, apart from achievement, is a thing to be prized. Life is too full of real problems and real values to put any premium on effort for its own sake. Duty for its own sake means blind subservience, which has been responsible for many a chapter in the weary history of misery and woe. Duty is just the obligation to be intelligent, to cultivate that responsiveness to values which is necessary for the conservation of past achievements and for further progress." [2, 10314].

We aim to develop in our growing boys and girls a maturing foresight that brings intelligence in increasing measure to bear upon all the factors in a situation; that considers more remote ends as well as the impulsive needs of the present moment; and that thus brings about such an adjustment of interests and needs as will do away with inhibitions and will command one's full resources of effort. But the way to accomplish this is not to ignore the claims of present experience, but to increase their importance by their future reference.

Subject Matter as an End-in-Itself.

The emphasis in Ontario schools upon covering prescribed subject matter and testing the student's *thorough mastery* of it, suggests that the subject matter in itself possesses qualities of educative value. By learning the subject matter, students will appropriate those inherent values. The gain may be in both information and in intellectual or moral capacity. So one studies mathematics, not only for knowledge of mathematical principles, but for training in reason and accuracy. The study of classics develops among other things a sense of language. Literature gives aesthetic and ethical appreciation. Science trains in observation and the experimental method of research.

The analysis of learning presented in this chapter, on the other hand, makes the value of subject matter dependent on how and why the material is learned and used. Learning is a stage in the process of putting the material to actual use. Subject matter in itself is neutral. It takes on value when it becomes the means of enriching a present experience of the learner. In other words, the potential value of subject matter is made actual when the learner finds the material of use to further his purposes. In terms of history, for example, the function of subject matter is revealed in the fact that "the past viewed simply as the past is dead; it

lives only in its union with the present and through the present with the future." [22, 115-116].

Learning may unite with and enrich the present by giving greater power of control over circumstances, greater ability to remove the obstacles to good living. Intellectual equipment is one outstanding means of increased control. Or again, learning enriches life by giving increased capacities for appreciation. Learning makes us more sensitive to sources of enjoyment, more alert to the meanings of things. "Normally every whole-hearted activity reaches out to get more meanings." Getting to know, just for the joy of knowing, is one type of this appreciative learning. Children show it to a remarkable degree, until for some cause the freshness of their interest fades. This kind of learning is not for the sake of reforming the evil of the world, but for the sake of enjoying its good. In the last analysis, every increase in powers of control serves to add to the enjoyableness of life, for individuals and for society as a whole.

It depends on the purposes that subject matter serves, whether it will contribute to either or both of these ways of enriching life. The same subject matter may be made to yield a variety of both control and appreciative values. The same value may be found in a variety of materials.

"Moral" Subject Matter.

No differentiation is to be made here between so-called moral and other educational values. In education for character as in any more specific objective, the educational outcome depends on how the subject matter is used. Moral outcomes are potential in every school situation. Any subject matter may be so used that it will take on moral value.

The Ontario High School Regulations concerning the teaching of Manners and Morals, suggests, however, the idea that moral value resides in certain subject-matter:—

"Throughout the courses, the teacher shall incidentally from current events, from the lessons in literature, history, etc., by his selection of the supplementary reading, and by his own example, as well as by precept, give instruction in moral principles and practices and in good manners."

Students are to get moral training through the study of current events, literature, history, etc. It is instruction, not use, that is emphasized. The behavior stressed as significant is that of the teacher, in setting an example and giving instruction in moral precepts.

We have as yet inadequately defined conceptions of what constitutes training for character or citizenship. We are dealing here with shifting, subjective evaluations. But we can list certain desirable outcomes, such as moral discrimination, social sensitiveness and responsibility, capacity for fellowship, co-operative good-will, initiative, self-reliance, courage. According to the theory of subject matter here presented, however, these "civic virtues" are to be taught and learned through concrete experiences of social living. In the processes of these experiences, subject matter of the schools must be called into use. But the potency is in the use, not in the subject-matter.

Yet moral precepts and principles have a real place in the educative experience. Like scientific laws, they sum up or generalize specific, observed ways of behaving. If they have come out of particular situations, they will be applicable to particular situations. That is they will be workable. But if they have been learned in the abstract—i.e., inculcated—they are very apt to remain detached from concrete behavior.

The inculcation of moral principles in young people is comparatively easy. "The way things are done" makes a ready impression upon youthful conformity. But morality of that impersonal stamp reveals strange gaps between theoretical standards and actual conduct, when an issue presses home the question of how *this or that* principle relates to *me*

in *this or that* situation. Moral principles that are to get into action must be made in action, not taught merely by example or precept or by inherently "moral" subject matter.

Objectives Extrinsic to Students' Interests.

Too frequently the objectives sought through various parts of the curriculum are formulated from above with little or no relation to any intrinsic purposes of the students themselves. To history courses, for example, are ascribed such values as preparing students for citizenship; teaching patriotism; training in judgment, imagination and appreciation; fostering habits of reading and research; imparting a sense of sequence and causation; developing social appreciation and moral standards. Whether they actually have all, or any, of these values will depend on whether students are really interested in these things. If students feel no such interest in the course, but learn in order to satisfy the teacher's demands or the requirements of the Department of Education, the educational value of their learning will be accordingly meagre.

Again, objectives in the teaching of civics are formulated in the Ontario High School Regulations as follows:—

"1. To interest the pupils in the problems of civic welfare; 2. to lead them to gather, with the help of the teacher, a moderate amount of information regarding conditions, and agencies, especially in their own neighborhoods; 3. to give them clear ideas concerning government, liberty, rights, and law, and to create in them a sense of personal responsibility for the welfare of the community and the country."

If we find that boys' and girls' present activities can be directed towards studying problems of civic welfare, towards gathering information about their own neighborhood, toward forming clear ideas of government, liberty, rights, and law; that is, if the teacher can lead his students to discover a real interest in these activities, the objectives of civics teaching will be realized. But we are particularly prone

at this point to substitute deferred for present values.

To emphasize the relation of subject matter to students' objectives does not deny the necessity for the teacher also to have objectives. Teachers must reasonably look for definite outcomes from every course of study. Objectives, held by teacher or learner, furnish a drive to activity, direct the course of the activity, and constitute a standard for judging success or failure. The confusion arises when we depend upon objectives set up by teacher or Department to drive and direct the students. Teachers' objectives serve with reference to teachers' activities. The teachers' activity in general is to direct the course of the students' active purposing.

Formulations of the potential values of subject matter, then, may be full of suggestions for the teacher, by pointing to possible contributions that the study may make in deepening and directing student activities. But such "values" are misused when they are set up as objectives in substitution for students' own purposes. For then students' purposes are used as means to learning subject-matter of hypothetical value, whereas education as growth makes the learning of subject matter the means to enriching students' concrete experience.

Moreover, a common experience of a student in the whole-hearted study of any subject is the way in which new values open up as he goes along. He discovers hitherto unsuspected connections and significance for his knowledge. Such a discovery is one of the keenest joys of learning. The way in which a subject may thus grow is described by Professor B. H. Bode of the University of Illinois, in an article on "Educational Aims and Scientific Method, in *School and Society*, Vol. IV, pp. 38-44.

"Any subject may normally become an instrument for the realization of various aims; moreover, this linking up of different aims, in connection with the same subject, prepares the way for the creation of new aims. . . . When a pupil really 'gets into' a subject, such as physiology, the objective,

'health,' at once tends to lose its dominant importance. Insofar as any attempt is made to point the bearing of physiology in evolution and heredity, on the spreading of contagious diseases and the wonderful adaptability of the organism, we are moving in the direction of other objectives. . . . Thus the study of physiology may create new standards and a new sense of obligation with reference to the need of safe-guarding public health, of supporting scientific investigation, and of distinguishing between beliefs which are just superstitions and those which rest on scientific evidence."

Thus objectives, whether of teacher or student, must be held tentatively, subject to revision and expansion. Otherwise they will retard growth rather than direct it.

The Dismemberment of Knowledge.

The growing revelation of knowledge is in part prevented by the traditional "subject" compartments, into which subject-matter is commonly divided. The division is the classification of specialists. It considers the logical organization of subject-matter, not the psychological use of it.

A mature student with an extended knowledge of a number of fields can overcome the handicap of these subject-divisions and appreciate the fundamental unity of all knowledge. But a young student is less likely to see beyond the lines bounding the periods of the time-table. In recognition of this evil, efforts are made in Ontario as elsewhere, to co-ordinate related subjects such as geography, history, and English. But such efforts at best bring together in an artificial combination material that ought never to have been disassociated from its natural inherent unity. The courses of study of our high schools grouping various subjects, do not overcome the difficulty. They appear to be based, not upon the inherent relationship of the subjects included, so much as on the principle of securing as widely diverse representation of subjects as possible.

An illustration of the unity of knowledge may be found in the trend to-day toward what has been called "synthetic history" which takes into account "the sum-total of human achievements." This movement is discussed by the Joint Commission on the Presentation of Social Studies in the Schools, in *School Life* of September, 1923:—

"History deals with the whole past life of mankind, and is as many-sided as life itself. History inevitably appeals differently to different persons. Some profit chiefly by the stimulus to their imagination; others broaden their horizon by a larger view of the world and its development; still others find their political understandings stimulated by more detailed study of the political and social problems of the past."

The revised history courses in Ontario are moving in this direction. They have added considerable social material to the old military and political subject-matter. The new course in civics is a great advance upon the former study of government. But taking the social studies of our high schools together (history, civics, and commercial geography), they can scarcely yet be said to touch the fringe of "the sum-total of human achievement." For instance, the whole field of economics is left out of consideration—surely a significant omission.

"The thought-directed energies of civilized man—his projects—are predominantly devoted to economic problems and activities. The adult male with relatively few exceptions, daily expends his freshest hours upon making a living, or accumulating property; the adult female, if she is not an employee of others, occupies herself with the immediate economics of the home. The uncertainties and the anxieties that arrest attention and make men think are concerned most of all with these occupations and the products thereof. Even in our higher or more spiritual enterprises—domestic, religious, humanitarian, artistic, scientific—the economic factor is practically omnipresent and not seldom it is prominent." [4, 104-105].

It is impossible to teach everything—of course. But it is not impossible to give in our secondary schools some idea of the richness of race experience, of the vast alluring fields open to exploration, and

some knowledge of how to go about exploring them. Imagine, for example, such leads as the history of music and painting, of house furnishing and architecture, of dress and games and the drama, of religion, of women's place in society and industry. How few of these subjects are even represented in our Ontario High Schools! And yet, how they and hundreds more lead out naturally from every-day living when one is awake to its significance! What responsibilities they hold for increasing the worth and interestingness of life! Would not such synthetic history answer to the needs of youth in a way that our present history courses cannot do? Would it not be more likely to build up an interest in history reading which is the acknowledged objective of the high school course of study?

Summary.

The use of subject matter in our schools must be judged in respect to these wider aspects of the total teaching-learning situation.

Is boys' and girls' school work felt by them to be inherently worth while? Is the subject matter taught of actual value because of actual usefulness in their present lives? Are their present needs, interests, and purposes being recognized in the curriculum? In what directions are these interests being developed? Is the interest taken by students in their work of a kind to last and grow, or is it contingent on temporary circumstances? Is effort co-ordinated with interest in whole-hearted purposing? Are students learning from their school experiences to take steadily enlarging views of life instead of being governed by immediate considerations?

The position taken in this chapter is that the traditional use of subject matter in our schools in great part ignores these vital considerations. The root of the trouble lies in a mistaken conception of the function of subject matter which is treated as

something having inherent value, to be learned for its own sake, rather than as something of value when used in meeting the actual needs of the learner. Thus the objectives sought in school work lack for students that intrinsic quality which enlists whole-hearted purposeful activity. The continuity of experience, whether we recognize it or not, endows this issue of the right use of subject matter with deep significance in the process of education which is growth.

The traditional treatment of subject matter finds its logical administrative corollary in the Ontario system of centralized control of the curriculum. If subject matter has the inherent value commonly ascribed to it, obviously the efficient method of treating it is: Determine the essentially valuable material; assign it to be learned; make sure of its being learned uniformly throughout the schools. The following chapter will examine the system of centralization of the curriculum in relation to educational aims and objectives in Ontario.

CHAPTER VII

CENTRALIZED CONTROL OF CURRICULUM

A highly perfected centralized administration is one of the most characteristic features of Ontario's educational system and a not unnatural source of pride. Centralization of control was built up gradually in the province under a succession of forceful administrators. It brought order and efficiency out of chaotic pioneer conditions. It grew out of a situation in which education was entirely dependent upon private enterprise, was controlled by a minority group, and catered to a limited section of the population. It resulted in well equipped schools, well trained teachers, scientific methods, well graded classes, equality of standards, and comparative uniformity of aims and objectives. The policy has been highly successful in what it set out to do.

Centralization of control represents authoritarianism in administration. The ultimate source of authority is the Department of Education. Local boards have certain powers, which are however not inherent but are granted them from above. Thus the Department has indirect control over all local initiative. Control of curriculum is exerted through prescription of courses and subject matter, authorization of text-books, and administration of departmental examinations. Control from above extends throughout the system. From Department to student there is a steadily decreasing measure of responsibility.

The question to be discussed here is whether, considering the situation as it is to-day, this type of administration is best adapted to meet the requirements of education that shall be made over into life and character and citizenship. Are the best principles of centralized control in line with the principles of education as growth?

I.—Limitation of Teachers.

Consider first the influence of this system upon the teachers, for what affects them must have a corresponding effect upon the students.

The policy of centralized control is intended to increase teachers' efficiency. This is illustrated by the explanation of the text-book system quoted in Chapter III:—

“It has, by limiting their responsibilities, tended to render teachers, inspectors, and other school officials more useful in the discharge of their duties.”

Teachers are freed from responsibility, not only for choice of text-books, but also for planning courses of study, selecting subject matter, and examining students for purposes of graduation and Normal School and University entrance. This restricts the work of teachers to presenting assigned subject matter and seeing that it is learned.

But can the work of teachers be thus ravelled out to one or two strands? Does it really make a teacher more useful to lessen his measure of responsibility? Does not the policy result rather in hampering him in his essential function?

Subject Matter, Method, and Objectives.

In the first place, the teacher is limited in his choice of subject matter. But the discussion of the preceding chapters went to show that, if subject matter is to play its normal part in the teaching-learning process, the teacher must have the greatest possible measure of freedom and flexibility in the use of it. The course of study is his working tool. By means of it he directs students' activities to the progressive improvement of their daily living. His knowledge and control of race experience, together with his intimate acquaintance with his students, enable him to recognize students' conscious needs, to bring potential needs to consciousness, to foster their purposes with respect to their needs, and to

direct those purposes towards a continuously enriching experience.

"As a recent writer has said: 'To lead this boy to read Scott's novels instead of old Sleuth's stories; to teach this girl to sew; to root out the habit of bullying from John's make-up; to prepare this class to study medicine—these are samples of the millions of aims we have actually before us in the concrete work of education.'" [6, 125-126].

When the meaning of classroom work is defined in some such vivid and concrete terms, the relation of means—or subject matter—to ends is brought into sharp conflict. If ends like these are to govern school procedure, very evidently the means must be discovered as the process goes along. They cannot be set up in advance and from the outside. The actual situation of the needy student will determine what means must be chosen.

Under the present system, we give teachers comparative freedom to choose their own methods of presenting the required subject matter. We fail, however to recognize the claims of what has been called "the wider problem of method." That problem is concerned with the total learning situation. It reckons with habits, attitudes, ideals and purposes that are being built at the same time that subject matter is being learned. These outcomes cannot be readily assigned in a syllabus in terms of prescribed subject matter. Neither can they be checked up by conventional tests. Yet the subject matter used, being the basic stuff of all learnings, must profoundly affect those outcomes also. In view of the complicated nature of the wider problem of method and the importance of the learnings concerned, the selection of subject matter becomes of most critical significance.

Plainly then, the competent teacher can outline the course of study and select the subject matter better than any one else. For he knows all the resources with which he has to work; viz., his students' particular needs and present equipment, as

well as the race experience that offers, and the social criterion that guides.

When the teacher is deprived of those functions through the prescription of courses by the Department, the teacher's use of subject matter is disorganized and the function of subject matter is distorted. It becomes the means to ends set up by the Department. One may say that those ends are adopted by students, and thus made virtually their own, when students set out to pass the departmental examinations. But it must be questioned whether the purposes thus adopted are not comparatively remote and devitalized for students, and the relevancy of the subject matter far from apparent.

"When I witness the vitality, the social reality and the perspective of various school projects of your children, and then see high school pupils pouring for hours every evening over assigned lessons, not because they are in themselves important, but because one's standing in class is at stake I cannot repress a feeling of injustice. 'What studies do you have?' I asked of a high school pupil. The various subjects were named. Picking out one of them, I said, 'Why do you study it?' 'Because it's required for graduation in my course,' was the reply. 'But why is it required,' I persisted. 'I do not know!' said the victim. The high-school pupil is likely to be loyal to such tasks, yes; and such devotion never goes altogether unrewarded. Nevertheless moving up from the grades into the high school should not mean a narrower freedom, a narrower co-operation, a contracted measure for life's values. . . . The secondary schools that deal most vitally with the life of the community have long felt that the movement of the student toward and with the college is a movement toward and into the relatively abstract." [4, 61].

Freedom for the teacher to make his own course of study does not, to be sure, finally guarantee that he will use that freedom wisely. A teacher may impose purposes on his class, as arbitrarily as the Department or University. But at least, freedom for the teacher permits the proper functioning of subject-matter. Centralization of curriculum effectually prevents it.

Authorized Text-books.

The system of authorized texts is the logical climax of a centrally controlled curriculum. Certain effects of the system have already been referred to in the discussion of the departmental examinations. Consider some further effects of the one-prescribed-book method upon methods of teaching.

Its use in the field of history illustrates in striking way the evils of the practice. Students are taught to rely on the judgment of one man in the interpretation of events. It is true that other books for collateral reading are recommended in the regulations. But the examinations are not set upon the collateral readings but upon the text. What opportunity offers here for weighing evidence, comparing divergent viewpoints, guarding against rash generalizations and avoiding partialities and prejudices? What possible chance is there for teachers to train students in habits of critical judgment? What chance is there for anything but the inculcation of uncritical opinion?

But the inculcation of opinion is a dangerous policy for the public schools of a democracy. Any opinions inculcated are more than likely to offend some section of the population. Therefore, the safe plan is to omit as far as possible all reference to issues that might arouse controversy. Under the text-book system, fear of indoctrination easily leads to the other extreme of almost complete avoidance by text-book makers of any live issue whatsoever. At any rate, that seems to be Professor Grant's attitude, as stated in his preface to the *Canadian History* text:—

"The writer of a *History of Canada* which is to be used by teachers and pupils, differing widely in religion, in racial origin, and in party affiliations, must avoid alike the obtrusion of his own prejudices and predilections and the presentation of a story, colourless and insipid." [10].

If teachers are to have no personal opinions, to teach from books from which personal opinions have

been expurgated, to avoid the treatment of topics bearing upon personal opinion, it will be no easy task to avoid "a story, colourless and insipid." It would seem that our democratic freedom of thought is to result, as far as schools are responsible, in freedom *from* thought in all matters that really count—surely an inadequate training for citizenship. Professor Dewey states the issue clearly:—

"Is there any meaning in the phrase 'democratic control' of social affairs, save as men have been educated into an intellectual familiarity with the weak places, the dark places, the unsettled difficulties of our society before they are overwhelmed by them practically? Our universities must indeed lead the way. But unless the methods of critical discrimination which they foster extend into our secondary schools and thence, indirectly at least, into the elementary schools, we shall find democratic control tied to a course of inert drift alternating with periods of excited explosion. To make our schools the home of serious thought on social difficulties and conflicts, is the real question of academic freedom, in comparison with which the topic which we have hitherto dealt with under that head is indeed academic." [38, May 6].

The text-book system represents the logical mind's passion for comprehensiveness. But this logical comprehensiveness disregards the psychological needs of the learner. Text-books, in the nature of things, are encyclopedic. When all the material "to be covered" is included within one book, the content must be reduced to its dry bones. In history, this procedure is particularly deadly. It means of course that the burden of supplying wealth and vividness of detail, to supplement the deficiencies of the text, is put upon the teacher who labors "to make the lesson interesting." But is this method calculated to build in children a love and respect for books, habits of wide reading, and desire to follow up a subject by further study? School work can be only be an introduction to learning. Especially for students who will go no farther in their formal education than the secondary school, we are concerned to lay the foundations of "education for more education." It is open to question

whether this is actually the effect upon most students of the comprehensive uniform text-books.

Considering the patent weaknesses of the uniform text from the point of view of students' needs and interests, the usual arguments in defence of it (see Chapter III), seem most inadequate. To limit the teachers' responsibility in the matter is to limit also their opportunity. Cheapness of books is poor economy if it entails killing a student's or teacher's interest, hedging in his outlook, and thwarting highly important educational outcomes. "Minimizing the difficulties attendant upon a pupil's changing schools" is a doubtful result. If we are concerned that students shall get a wide familiarity with books and ease in using them, rather than merely a verbatim knowledge of their content, a change of books might conceivably be advantageous. At any rate, this consideration is surely one that affects only a limited minority of our students, and as such is scarcely an argument for imposing an undesirable feature upon the great majority.

Waste of Resources.

The uniform curriculum surely must often involve a waste of the varied resources and capacities of teachers. In this connection, Professor J. C. Robertson of the University of Toronto, in an address to the Ontario Educational Association in 1921, said:—

"Teachers, good teachers, differ greatly in the methods by which, and in the subjects through which they are able to arouse interest and stimulate the growth of intelligence. High school teachers have often had cause to deplore the fact that so many pupils come to them from the public schools with all desire to learn gone, with all interest in knowledge somehow killed. If a teacher of young children in the public school has the gift somehow, anyhow, of keeping alive and alert the child's native curiosity and interest in discovering new truths, I should hesitate to be too meticulous about inquiring whether there had also been imparted a minutely defined quantum of the formal curriculum." [55, 1921].

Further, there is serious waste involved in hindering a teacher's development. Teachers no less than their students are subject to the laws of intellectual and spiritual growth. Life for them, too, is a process of the continuous reconstruction of experience. Each day's experience should be changed for the better because of the experience of the days before, and should point forward to continued improvement. Therefore, a teacher's work must never cease to present new insight into possibilities, new ideals and purposes, and new powers of achievement. It must constantly challenge him and lead him on to further learning.

But the centralized curriculum tends to cut off that growth prematurely. Teachers will surely learn from experience up to a certain level of improvement, and individual capacities for such learning will vary greatly. But the limit of improvement comes much more quickly in routine work of any kind than in work calling for resourcefulness and adaptation.

"It should be an obvious consequence of the nature of improvement that the fundamental psychological conditions for it are that some chance be given for desirable bonds to be added or for undesirable bonds to be destroyed. . . . The mere exercise of any modifiable function almost always result in some variations, but *whatever stimulates variations* gives the chance of a wider range of useful variations for the learner to adopt or reject." [28, II, 213].

It has been estimated that the average teacher reaches his maximum efficiency within three years of the time he starts to teach.

"It appears likely that the majority of teachers make no gain in efficiency after their third year of service; but I am confident that the majority of such teachers could teach very much better than they do." [28, II, 179].

Can we afford to perpetuate a policy that so stunts our teachers' development?

It is true that teachers face a fresh problem each year, with the influx of new students varying

in abilities and disabilities. But we may seriously question whether the annual student turn-over will continue long to be a sufficient stimulus to a teacher who is content to follow a routine; whether, indeed, the thoroughly routinized teacher is able even to perceive the possibilities latent in individual differences. It becomes all too easy to fit the child to the coat, rather than the coat to the child. When the constant factor of a required curriculum holds the determining place, the variables of student personality are almost bound to be subordinated.

Lessening of Prestige.

Again, the centralized curriculum reduces the teacher in great measure to the position of an executive under orders. His duty is to carry out orders, not to initiate them. The likely effect of thus limiting his responsibility is to lessen a teacher's professional prestige, both with his class and with the public at large.

"One of the sources of strength in a teacher with her pupils is the responsibility and authority of the teacher in the matter of what is to be taught and what is to be accepted as satisfactory and as superior achievement." [59, 468].

The psychological effect of this limitation upon the teacher himself will vary with individuals. The lazy teacher rejoices in a means of escape. The weak teacher submits with docility. The able and resourceful teacher chafes under the restriction. He may settle down eventually and accept the routine, or he may be driven to give up. Probably many people with desirable qualifications for teaching are deterred by its restrictions from ever entering the profession.

Readiness to assume responsibility is usually considered an obligation incumbent upon competent persons. It is essentially a qualification for leadership. Will Ontario maintain that readiness to avoid responsibility is a qualification to be sought in her high school teachers?

Summary.

From the point of view of education as growth, detailed prescription of the curriculum by the Department, instead of increasing teachers' efficiency, tends to weaken their work by restricting their choice of subject-matter, method, objectives, and text-books. Thus it wastes the resources of the more competent teachers and hinders the development of the weaker ones. By lessening their responsibility it lessens also their prestige, and it may be questioned whether it does not affect undesirably the status of the profession as a whole.

II.—Limitation of Students.

The authoritarian principle, which limits teachers' responsibility and initiative through centralized control of curriculum, limits perhaps even more stringently students' freedom of self-direction.

A student's career is largely determined for him by the Department. His range of choice in the high school is restricted to one of four possible courses, and a limited number of options within any course. Departmental prescription of obligatory subjects, and the requirements of the respective courses, together with the regulations as to the maximum and minimum number of subjects to be carried by a student each year, fairly completely shape his programme. Where the Department leaves off, the high school principal steps in. The student's own responsibility in the matter is reduced to a minimum. The increase in options provided by the revised curriculum (1922), is not intended to give students any added powers of self-direction. It is rather an administrative device for the guidance of principals. That point was made clear by the curriculum committee in their Interim Report:—

"The purpose of this recommendation is not to give freedom of selection to pupils to study one or more subjects as they please. Rather it is intended that the Principal, no

longer restricted by the exigencies of the present examination system, shall be free to organize the courses in his school with a single eye to the best interests of the pupils under his charge, and in harmony with his conception of what a true education calls for, and it is to be understood that with his knowledge of their needs he shall have authority to determine the subjects which individual pupils or groups of pupils would be required to take."

We have here an evident policy of studied paternalism. For their "best interests," students are to be governed in all the critical decisions of their school life, by persons competent to judge of their needs and of the demands of a "true education." What is the bearing of such a policy of paternalism upon our conception of a "true education?"

Lack of Self-direction.

Whatever aspect of aim we stress—preparation for citizenship, training for ethical character, development of a growing personality—we are everywhere met with the fundamental need for training in powers of self-direction.

"It might be said that real character-training consists in the gradual substitution of intelligent definite self-guidance for rule of thumb." [22, 97].

We are concerned that our students shall develop ability to plan their actions, to judge between alternatives, to foresee and evaluate consequences, and to take responsibility for their decisions. Therefore we look for steadily increasing capacity of self-control to take the place of external compulsion. Somewhere along the route, surely at least by the time the secondary school is reached, we should agree with Miss Catty that

"there are moments when one must make a child do a thing; but those moments point to our failure in training and should be accounted as such." [3, 20].

The seriousness of failure at this point is being sharply brought home to-day. The "revolt of youth" against external authority seems to be especially

pronounced in this generation. Many familiar forces of control are breaking down.

"There is truth in the frequently heard wail that the children of to-day are uncontrolled; lawless; lacking in reverence for the ideal and the holy; that they are subjected to too many exciting stimuli; that they are frittering away their powers upon worthless if not harmful pleasures; and that no sufficient barrier shields their minds from contamination from the awful ways of adults.

"The truth in this complaint is so great and so portentous that if there were in sight no better controls than those of the schools of yesterday (and, for the most part, of to-day), not only would this dejected wail be justified but settled pessimism also." [4, 48].

To some people, this rejecting of authority is as terrifying as were the heresies of the sixteenth century astronomers and physicists to their own generation. To others, it is full of hope, because they see in it the evolution of new and better forces of control.

But does this policy of paternalism help to bring those better forces to realization? Are students to be taught powers of self-direction by teachers who are not free to direct themselves? Are students to learn responsibility and control under a school regime of continued tutelage and paternalism?

A policy of paternalism fails to recognize that the learning of self-direction is as specifically conditioned as any other kind of habit formation. It is to be acquired and strengthened by actual exercise with attendant satisfaction. Our school practice in this respect is still largely dominated by the old psychological fallacy of the Duke of Wellington's maxim, that a man can never command unless he has learned to obey. We can be more sure that a man can never command unless he has learned to command, himself no less than others. If he has learned only to obey, we may expect little else than obedience from him. Obedience and self-direction alike will be strengthened by use and weakened by disuse.

Neither will a student learn self-direction without the essential impetus of a felt need. Remove from child or adult the necessity for self-guidance and he will all too readily submit to be led. Only the most vigorous personalities resist. Our very physical nature is an accomplice in our undoing. The new path is always distressing to old habits. The "lag of habit" drags us all along the line of least resistance.

Some secondary schools in Ontario, realizing the importance of providing opportunities for student self-direction, are endeavoring to make good the short-comings of the curriculum through extra-curricular activities. London Collegiate Institute, for example, should be recognized as a leader in developing student participation in school government. A representative council takes responsibility for the social activities, school journal, and certain features of routine school discipline. This is moving in the right direction. But can we logically stop here? If we are willing to trust students with only the relatively unimportant decisions of school life, is it not a good deal like letting them play at the business? Play has its valuable training function, but it lacks a certain necessary quality of final responsibility for results.

Final responsibility for vital decisions must ultimately come to all. Is it not better that it should come for most young people in school, under wise guidance and supervision, than that it should be thrust upon them suddenly at the end of school days?

The Use of Guidance.

For self-direction does not rule out guidance. The necessity for self-direction, rightly conceived, emphasizes the value of competent advice. Ability to know and make use of the expert may be for our students one of the most important outcomes of training in responsibility and initiative. Professor

Thorndike points out that what we mean by self-reliance is really reliance upon facts; self-direction, direction by rational judgment.

“ . . . In our day and manner of life, independence consists in choosing whom to follow, rather than in following one's own devices. . . . Human beings will follow and should. Who should be followed in a democracy? I see no answer but ‘the impartial expert.’ . . . Cannot boys and girls of the High School age be taught that the essentials for leadership are expertness and impartiality? . . . They can also be cured of the unfortunate pretense that one person is as good as another in politics, personal and public hygiene, or business management.” [29, 10].

Thus, freedom for students to plan their course of study does not at all mean that the teacher's function of guiding and directing is dispensed with. It should mean, rather, that the teacher is enabled to do his proper work. It should mean that the teacher's actual authority as an expert adviser is really increased.

Our customary thinking about the relation between the teacher's authority and the student's freedom, has been much influenced by a fallacy, says Dr. Coe.

“The fallacy is that freedom or control or authority is a definite quantum, so that, in any social situation, if one member of the group possesses more, the others have less. So bound are we, Bergson might say, to space-derived categories even when we endeavor to think the non-spatial. Freedom is like joy; sharing with a friend may double my own portion. We deal here not with a mechanical law, but with a spiritual law, that is a law of relations between persons.” [4, 46].

When both teachers and students are thus free to act in their normal relationship, the teacher to advise and direct, the students to consult, the student is practising the kind of self-direction that leans upon expert advice.

“This leaning deserves careful scrutiny. It is not subservience to authority in the fashion of the schools of yesterday; it is not blind attachment to an attractive personality;

it is the acceptance of guidance by science recognized as such. It reaches its maximum when the pupils recognize that the director himself is not subservient to a mere tradition or custom, but is studying, learning, and modifying his own procedures in response to increasing scientific insight." [4, 53].

Summary.

The position taken here is that the policy of extended paternalism, exercised toward students by the Department, deprives them of adequate practice in self-direction, and substitutes dictation for guidance. In these respects it is contrary to the principles of education as growth.

III.—Limitation of the Community.

To the limitation of teachers and students must be added the limitations placed upon local school boards and the communities they represent. Limitation of the powers of individual schools and local boards also tends to retard progress by reducing interest. For interest has a high correlation with responsibility. At present, the powers and responsibilities of local communities are limited to control of the external, material factors of school administration, viz., furnishing and staffing the school plant and supplying financial support. In the vital uses of education to which the plant is to be put, they have no voice.

Can we wonder, then, if sometimes school boards seem inordinantly concerned with questions of economy and apparently lose track of larger considerations in school policy? The surest way to broaden their vision is to broaden their responsibility. Conferences of ratepayers, parent-teacher associations, and all other endeavors to generate and organize local enthusiasm for education, must be hampered so long as the enthusiasm generated is known to be so narrowly limited in its range of expression.

IV.—Limitation of Educational Aims.

Centralized control of curriculum suggests finality of aim rather than growth. By demanding a uniform standard of education for the province, it centres attention upon keeping schools "up to the mark" in process and output. This assumes a definitely fixed mark. Other marks possible of achievement are left out of the reckoning. That is to say, a prescribed curriculum suggests a finality of educational aim that seems irreconcilable with the conception of education as growth. If education is growth, then the aims of education must be forever in the making.

"Does not, however, the conception of growth imply something final and remote toward which growth is directed? Must we not conceive of growth as approximation to a far away goal? . . . In the first place, the conception of growth as merely a means of reaching something which is superior to growth and beyond it, is a survival of theories of the universe as being essentially static. These theories have been expelled by the progress of science from our notions of Nature. Motion, change, process, are fundamental. In the last half century these same ideas have been successfully applied to the life and structure of living things, plants, and animals. The moral sciences, to which education belongs, have become the last refuge of ideas which have lost their intellectual repute elsewhere. The scientific presumption is working against them everywhere.

"In the second place, even if our ultimate philosophy accepts a static conception of reality to which growth is relative, yet the educator, if his aims are to be at once definite and capable of support upon the basis of ascertained fact, must start from the process of growth. He must obtain from it clues and hints as to the nature of the final end, instead of trying to decide what is and what is not growth on the basis of a conception of an ultimate end. Opinions as to the latter differ widely. To start from that end is to involve education in disputes that cannot be decided except by personal taste on the acceptance of external authority. The physical growth of a child can, however, be decided by tests applied to present conditions—observable and recorded changes in height, weight, and other phenomena. These things, and not an ideal of an ultimate physical perfection, guide the wise physician and parent in estimating whether a child is growing, standing still, or retrograding. The problem of the educator is, likewise, to devise means of studying

and discovering changes actually going on in the mental and moral disposition of pupils, and to construct criteria for determining what these changes signify with respect to growth. Only as the philosophy of education recognizes that for its purposes, at all events, growth is the chief aim and ideal, can philosophy be applied intelligently to the specific facts of education, instead of remaining a body of remote and inapplicable—even though lofty—conceptions.” [John Dewey, 30, I, 34].

Where can we look for this remaking of aim, if not to the schools themselves? If schools are to perform their function of leadership, they must be free to experiment and to adventure, in a way that a centrally controlled curriculum effectually inhibits. Dr. George H. Locke (then Dean of the School for Teachers, Macdonald College, Quebec), discussed this responsibility of the school for leadership in his inaugural address in 1908. He said:—

“We have been so accustomed to speak of the school as reflecting civilization that we have come to look upon it as a species of proverb, incontestably true. If, however, we examine the education of to-day and compare it with the social progress and the changes in our environment, we shall see that too often the school which is, of course, the concrete embodiment of our educational theory, not only does not reflect the civilization of to-day, but reflects a civilization that has long since passed away. But even were it true that education in the school reflects the civilization of to-day, would it be desirable? It means that civilization has to go ahead in some blind empirical manner and after, perchance, many failures, establishes another outpost. Then comes the school and tries to adapt itself to these new surroundings. But I have suggested in a preceding sentence that civilization needs guidance. Is it not reasonable for us to expect that the one institution upon which all can unite should show us the way to a greater and better civilization? To show the way, education must provide a new and ever progressing environment; the school must be the pillar of cloud by day and the pillar of fire by night,—at all times the outward and visible sign of an inward and spiritual reality that urges forward and points the way towards greater possibilities for usefulness and for enjoyment through that usefulness.”

Thus the theory of education as growth finds that the highly perfected system of centralized administration in Ontario suffers from the defects of

its excellence. By carrying the principle of authority which it represents into matters of the curriculum, while it secures a high standard of uniform efficiency, it misses the finer fruits of variety and self-expression. It is detrimental to the development of teachers, students, schools, and communities. It illustrates, in short, the subtle temptation of a highly centralized system to overstress what Sir Michael Sadler has called "administrative tidiness."

"From our experience of German education we may draw lessons for the guidance of our educational policy. If we are prudent, we shall avoid an excess of bureaucratic control. We shall frankly recognize the value of official experience, and of the guidance and prestige which the resources of Government enable it to give to educational effort. But we shall guard ourselves against setting too much store by administrative tidiness in our educational system. We shall remind ourselves that in the difficult days of social readjustment which will follow the war, there will be more need than ever for variety of experiment, for variety of educational tradition, for variety of responsible initiative. The most valuable things in our education depend on encouragement being given to each school to have a personality of its own. But to have a personality, a school must have (so far as a reasonable degree of public order allows) freedom of growth, and self-direction in its purpose." [24, 313].

CHAPTER VIII

SUMMARY: GENERAL LINES OF ADVANCE

In summing up the discussion of the preceding chapters in the following suggestions, no attempt is made to attack the many problems of administration that they involve. The object of this study has been to examine the philosophical implications of certain features of the Ontario secondary schools in relation to the theory of education as growth. Suggestions for change, therefore, are in the same terms.. They deal only with broad lines of policy. They are conditioned by considerations of values, which must underline and determine all administrative procedure.

The conclusion arrived at is that the problems of our educational situation in Ontario to-day call for a reconstruction of certain basic principles. To undertake such a reconstruction would be merely to put education into step with the far-reaching changes that are going on in social, political, economic, and scientific affairs.

"Problems do not arise arbitrarily. They come from causes and from causes which are embedded in the very structure of the school system—yes, even beyond that, in the structure of society itself. It is for this reason that mere changes in the mechanics of the school system, whether in administration or in the externals of subject-matter, turn out mere temporary devices." [John Dewey].

We have for some time in Ontario been busied with adding particular refinements of practice to an excellent organization. Our system has been characterized as "an almost perfect machine." But a danger lurks in over-refinement.

"As the needs of the State change, so should educational theory and practice. If a new practice is introduced, but the theory remains unaltered, the theory loses its vitality, and practice, instead of being purposive, or a means to an end, becomes an end in itself, and dodges—the use of certain ap-

paratus or certain methods—may be looked on as a panacea for all evils. [3, Intro. X].

The practical work of reconstruction calls for careful scientific study and experiment by specialists in many lines, not the least important of whom are teachers in the field. This was pointed out by Dr. E. A. Hardy, Vice-President of the Canadian Teachers' Association, writing in the *Toronto Globe*:—

“If an educational survey could be made of this Province, for example, it might be the best thing since the days of Ryerson. Such a survey could be made only by thoroughly competent men and women, administrators, trustees, teachers, business and professional men and others. Our present situation would be thoroughly studied, the experience of Great Britain, the United States, European countries and the self-governing Dominions would also be carefully examined. All phases of our educational system would be included, as well as all phases of our community, Provincial, National and Imperial life. It would take time and money, but the hundred thousand dollars, more or less, that such a survey would cost might quite easily be saved in the building operations of a single city in one year. At any rate, it is worthy of careful consideration. [35, Jan. 19].

In the meantime, however, certain large changes in objectives and administrative procedure are suggested by this study. They are as follows:—

I.—A Comprehensive Educational Ideal.

First, the argument points to a comprehensive conception of education for all secondary school students, which shall be purposeful and specialized, and at the same time shall reach out to ever-widening fields of knowledge and appreciation. It must take adequate account both of the particular needs of individuals and of the common needs of social living.

Composite Schools.

This conception calls for the uniting of the two types of secondary schools in the province. Instead of two separate groups of schools, one avowedly

vocational , the other partly so in function though not in name, we should have one unified set of secondary schools under one piece of administrative machinery. All of them alike should be definitely directional. All alike should aim at the richest possible general education. The marked discrimination between the academic and the practical, whether in culture or in vocation, should be obliterated.

An opening exists for a move toward comprehensiveness in the Composite High Schools that have been rapidly increasing in the province within the last few years. These schools, it is true, unite the two types of institution in only physical external respects. That is to say, they house two schools within one building or set of buildings. Except that the two schools are directed by one principal, they are in all respects strictly separate.

The union should be made organic by the interrelation of objectives, curricula, and administration. The sharp differentiation between academic and vocational students should be done away with by making all students eligible for courses of all kinds. What means of encouragement are available should be used for inducing students whose major interest is academic, to take also some practical work in shop or laboratory; and students whose vocation is technical or industrial to choose broadly in academic fields also.

General and Directional Education for all Students.

The inherent relationship between general and vocational education could then be realized. The aim of Ontario to give general education to all students would find much more apparent expression. It would be possible, also, to enrich greatly the content of that general education, by including practical as well as academic courses, where the needs of the students so demanded. The union would embody too the ideal of vocational training for all. Vocation could then be demonstrated in its large sense of di-

rectional, purposeful, specialized work, of both individual and social significance, and of psychological as well as economic importance. Opportunity would be offered for showing the greatest possible respect to individual differences in interest and capacities of students. At the same time, the effect would be unceasingly to correlate diverse outlooks, so that from free interaction might emerge a richer "common culture."

With respect to the present disparity in academic and vocational opportunities in the province, Dr. J. C. Miller, in his survey of *Rural Schools in Canada*, writes:—

"The public expenditures for secondary education, if used almost solely for those entering the professions cannot be justified for it is out of harmony with the principle of fair play and equal opportunity to all. It is now known and more or less fully appreciated that intelligence and training, scientific knowledge and social experience are needed in many fields not included within the limits of the so-called professions." [17, 128].

Technical and industrial education, it is true, is much more expensive to provide than academic, yet our cities are going ahead along this line fairly rapidly. The fact may be taken as corroboration of one of the "fundamental assumptions" set forth by Dr. W. L. Richardson in his study of *The Administration of Schools in the Cities of the Dominion of Canada*.

"The people of any city are willing to agree to changes in the organization of their school system and to furnish all funds necessary to the adequate maintenance and extension of school facilities, provided they are convinced of the value of the proposed changes and the necessity of increased expenditures." [21, 2].

A further assumption may be ventured, based on educational history in Ontario as well as on present agitations for reform. The people of the towns and country districts of Ontario are not less solicitous for educational advantages, nor less resourceful in meeting the exigencies of a felt need, than are the

people of the cities. Far-reaching changes in policy may be expected to wait upon the conviction that the present school organization is not calculated to provide equality of opportunity for every child. For equality of opportunity is a fundamental postulate in Ontario's educational creed.

II.—Attention to Wider Outcomes of Learning.

The theory here advanced requires that our schools shall stress the total results of behavior, not merely one segment of predominantly mental activity. Education for growth should take account of students' ideals, purposes and habits, in all of which knowledge—so called—is only a factor. Attention must be directed to securing with the increase of learning, a steadily increasing unification of personality.

The Examination System.

Therefore the argument calls for some substitute for the present departmental examination system, which frustrates the wider and deeper purposes of the schools. That does not by any means imply that achievement and capacity shall not be measured in the schools. To do away with all tests and examinations would be to deprive the schools of a most valuable educative feature. Neither students nor teachers can make intelligent progress without knowing the success of their efforts, and examinations and tests help to provide that knowledge. The argument of Chapter V was not directed against examinations in themselves but against the departmental system of uniform external examinations in Ontario.

The question of a substitute for those examinations calls for careful study of our specific situation. Solutions to the problem are being worked out elsewhere, however. Reference may be made to three outstanding lines of advance.

There is a strongly marked tendency to put the burden of responsibility for examinations upon individual schools and teachers. The teacher who has had the most intimate association with a student is considered best able to judge of his capacity and achievement.

"In Germany and America the tendency has been to limit the number of examinations so far as possible and by building up a strong teaching profession and system of inspection to accept the decision of the teacher on the question whether pupils have attained required standards or not." [19, II, 533].

With respect to the secondary school examinations in England, a notable change of procedure has recently taken place. "The chief criticism of the examination system," writes Dr. I. L. Kandel, has always been that it was conducted by men who were out of touch with the schools, and that the examinations tended to be the goal of school work instead of a test of its results." In 1917, an advisory council was inaugurated by the Board of Education, aiming, not only to co-ordinate the multiplicity of standards of the many examining boards, but also to keep the boards more closely in touch with the teachers in the schools.

"No examination scheme will be approved unless it provides for bringing teachers into touch with the examining board, for examining a school on its own syllabus, if it so chooses, and the syllabus is, in the opinion of the examining body, adequate in scope or character and the estimates of candidates as reported by their principals are taken into account . . . the requirement that closer contact be maintained with schools will have a salutary effect in removing from the school the necessity of sacrificing the real ends of education to the examination goal. A similar attitude is developing in the matter of the award of scholarships. More and more, narrow specialization for ends that are not inherent in sound education is being eliminated, and examinations will but serve as tests to be taken in the ordinary course of developments. The problem that still remains to be solved relates to the nature of the examinations. Something has been done to discount cramming in the present regulations and to take into consideration a student's record as reported by the teachers. The next step will undoubtedly be a consideration of the reform of the character of the examinations

themselves. The probability is that more attention will be given in the future to oral tests and that in the written examinations mere repetition of information will be discouraged." [I. L. Kandel, 46, 34].

The plan of accrediting schools and then accepting their judgment, divides the responsibility between the schools and the accrediting board. This plan is in wide use throughout the colleges of the United States.

A combination of accrediting and examination systems, known as the New Plan of Admission, was initiated by Harvard College and is now used by a number of colleges working under the College Entrance Examination Board.

To be admitted under this New Plan, a candidate (1) must present evidence of an approved school course satisfactorily completed, and (2) must show in four examinations as explained below that this scholarship is of a satisfactory quality.

A candidate must present to the Committee on Admissions evidence of his secondary school work in the form of an official detailed statement showing:

- (a) The subjects studied by him and the ground covered;
- (b) The amount of time devoted to each;
- (c) The quality of his work in each subject.

If the official detailed statement presented by the candidate shows that he has satisfactorily completed an approved secondary school course, he may present himself for examinations in four subjects as follows:—

The candidates for admission under the New Plan are required to show in their examinations the full extent of their school training in the subjects they choose for examination. The examiner in every subject will be required to return to the Committee on Admissions a judgment of the candidate's paper, in which he takes into account the length of time the candidate has studied the subject and the amount of ground covered.

To be admitted under the New Plan, a candidate's total record (school record and examination record) must be such as to show clearly that he is a desirable student. There will be no counting by subjects under the New Plan, nor crediting of separate subjects. A candidate will be admitted to College, or will be refused admission. If he presents himself as an applicant for admission again by the New Plan, it must be in some subsequent year. He must submit a record of regular school work performed in the intervening time and

he must be examined anew irrespective of previous examinations. . . . [51, 151-159].

Harvard is also trying another experiment, of admitting proficient students without examination:

"A student who has completed *in regular course* a programme of study in a good secondary school which fulfills in *all* respects the requirements for admission to the privileges of examination under the New Plan may, if recommended by his school, be admitted without examination, provided he has ranked in scholarship in the last two years of his school course in the highest seventh of the boys in his graduating class." [51].

Columbia College has led the way in experimenting with the use of intelligence tests in partial or full requirement for entrance. The plan is as follows:

The new method is based upon the principle that fitness for college is determined by (1) Preparation, (2) Character and Promise, (3) Health, and (4) Intelligence.

1. As evidence of preparation, the candidate must submit his complete secondary school record.
The school itself must be of high standing.
2. Evidence of character and promise is supplied in his principal's recommendation and in his application for admission. The usual certificate of good moral character is very considerably amplified.

The candidate is required to give at least three references and to write a letter telling why he wishes to go to college, why he selected Columbia, and what he expects to make of himself.

3. As in the old method of admission, he files his complete health record.
4. If his records are satisfactory in all respects, he is permitted, upon application, to substitute the intelligence examination for the entrance examinations. (Annual Reports of Columbia University, 1919—pp. 234-37).

To the intelligence examination has more recently been added a "content placement examination."

"The content placement examination, in its final form, will consist of a battery of New Type objective tests for achievement in English, Mathematics, Modern Languages, Science, and History. . . . From four to seven hours are required to give the battery to a group of five to eight hundred candidates." [31, 276].

The substitution of a system of accrediting schools for the system of Ontario departmental examinations was recommended by Dr. E. A. Hardy, in *Talks on Education* in the *Toronto Globe* (May 3, 1923). Discussing the freedom of curriculum enjoyed by the high schools of the United States and Great Britain, as compared with that in the Ontario schools, he said:—

Is it possible for us in Canada ever to reach a similar measure of educational freedom? That is easier to ask than to answer. What is our greatest barrier? Are our teachers incapable, through lack of scholarship, lack of administrative power, lack of initiative, of handling their schools as well as their British and American confreres? Are our Boards of Education too timid or too much obsessed with the value of uniformity to measure up to the added responsibility that would be conferred by a larger measure of freedom in the control of their schools? Probably both the teachers and the trustees would deny any such faults, and they would without doubt rise to the new responsibilities, and would display initiative and resource and courage.

Is it not rather that the two greatest barriers to educational freedom in Ontario, at any rate, are the entrance examination to the high schools, and the matriculation examination to the universities? Suppose that both of these were abolished, and that public school graduation and high school graduation were substituted. Suppose that the certification of the teachers as to the attainments of their pupils were accepted in place of outside examinations. . . . There is a growing body of opinion among our Canadian teachers that these two examinations, the high school entrance and the matriculation, are barriers in the path of educational development. There is much to be said in favor of their abolition, or, at least, of their restriction to the smallest possible area.

An argument frequently heard in Ontario against thus delegating to individual schools the work of examining, is that principals and teachers are unwilling to undertake the burden, through fear of criticisms and complaints from students and their parents. This attitude can scarcely be defended, when educational values are at stake. If it rightly interprets the situation, it furnishes rather a strong indictment of an educational policy that condones such timidity. Professor Robertson touched on this

phase of the question in his discussion of *Decentralization and Devolution*, before the Ontario Educational Association in 1921.

"This reluctance to assume responsibility is itself one of the results of the long-continued policy of centralized supervision, and one of the chief grounds for condemning or deploring that policy. If men are becoming asphyxiated in a poisonous atmosphere, the fact that some are already incapable of movement is all the stronger reason for hastening the escape from the deadening influence, and to get out where one can breathe the free air of heaven." [55, 1921].

Ontario has already taken more than one step in the direction of delegating responsibility. Outside examinations are no longer used for promotion of students from class to class. For the High School Entrance examination, the recommendation of the principal is now accepted in schools that meet prescribed requirements. Most recently, the Lower School examination has been made unnecessary for students certified to have taken the prescribed course of study in qualified schools. Most significant of all is the freedom of the vocational schools from the "examination incubus." Except in the case of students preparing for university courses in applied sciences, local tests serve all purposes of grading, promotion and certification. But with all these concessions, the university entrance examinations remain impregnable. They must yield if education as growth is to be realized.

III.—Subject Matter as Means.

The third line of advance has to do with the use of the subject matter of the courses of study. According to the conception of education as growth, subject matter must be treated as a means of enriching the present lives of boys and girls, instead of, as at present in our schools, being treated as an end-in-itself, to be learned for the sake of its future usefulness.

The psychology of the learning process reveals an enormous waste of resources involved in the traditional use of subject matter. There is waste of youthful purposes and interest and whole-hearted effort; waste of actual learning, since "cold storage" knowledge proves in large measure inadequate for practical use, and is moreover readily forgotten; waste also in the undesirable habits unconsciously built that must be counteracted. On the other hand, when subject matter is learned because it meets the present need, such learning is vitally reconstructed in experience. If our schools will make it their function to direct that reconstruction by the right use of subject matter, education may become an actual process of growth for our students.

This interpretation of the meaning of subject matter, cutting across traditional usage as it does, runs counter to the prescription, by the universities and the Department of Education, of definite amounts of material to be learned. Thus advance along the line of subject-matter has a direct bearing also upon the fourth line of advance: viz., a policy of diversity and self-direction, instead of uniformity and authoritarianism in our schools.

IV.—Self-direction and Diversity.

Education as growth would call for decrease of fixed prescription of courses, and corresponding increase of freedom for students to choose their courses of study. Much greater latitude than the present choice of options is necessary to the realization of the ideals of general and directional education discussed in Chapter IV, and of the capacities for self-guidance discussed in Chapter VII.

Increase of Teachers' Responsibility.

Also, the theory of curriculum presented in Chapter VI would give the teacher much greater freedom in outlining the courses of study and choosing the subject-matter of the courses. The plan of

leaving the teacher free to choose his material is not altogether untried in Ontario, however. It is used in the high schools in the Lower School Course in English Literature. The prescription for that course reads as follows:—

Intelligent comprehension and oral reading by the pupils of suitable authors, both prose and poetry.

Systematic reading by pupils of the texts studied in class.

Supplementary reading provided by the pupils themselves or supplied from the school, public, or other library.

Memorization and recitation of choice selections in prose and poetry prescribed by the Department and of others made by the teacher.

NOTE.—The object of the course in the Lower School is the cultivation of a taste for good literature, not by minute critical study, but by reading at home and in school aloud and silently, with due attention to the meaning, standard authors whose works will quicken the imagination and present a strong element of interest. Such authors should be chiefly narrative, descriptive, and dramatic. The selection of the works to be read in the classes of the Lower School rests with the Principal, who should be guided in his selection by the advice of the teacher of English. [67].

Also, the special courses of the vocational schools are not planned by the Department, but are left to the vocational committee in charge of each school. It may be said that this deviation from the policy of prescription is because vocational courses are comparatively new, and that we lack the knowledge, therefore, to prescribe them in detail. But the lack of established tradition regarding content of courses might as easily be used as an argument favoring greater rather than less prescription.

The general policy followed with respect to the vocational schools points to a much more fundamental argument. For even the general, obligatory subjects—the traditional subjects of “common culture”—are here merely named, not outlined in detail. In all respects the vocational schools exercise more initiative and responsibility than the high schools. They may almost be said to be under different dispensations. The recommendations of the Royal

Commission regarding the administration of Vocational Schools have been rather carefully followed:—

“Experience elsewhere indicates that it will be advantageous to leave the initiative, the control and administration of the general work of the school, largely in the hands of the local authority. The central or higher authority should co-operate by putting at the service of the local body the full information which it alone could possess and the benefit of inspection,—counsel—and advice by experts whom it only could employ. Supervision and inspection should all be directed to conserving and increasing local interest, and at the same time to maintaining high standards of work in the schools, and raising these gradually as the pupils and teachers from experience are able to come up to them.” [57, I, 21].

Education as growth requires advance in the direction of similar freedom and responsibility for high schools and high school teachers, in all subjects of the curriculum.

Greater freedom for the teacher would involve abandonment of the policy of authorizing and requiring uniform text-books. It would give permission to teachers to choose their own books freely. A start has been made in this direction, notably in the comparatively newer courses in the high schools.

“No text-books are authorized in Art, Agriculture and Horticulture, Manual Training and Household Science, but suitable reference books, selected by the Principal and approved by the Inspector, shall be provided in the school library by the Board of School Trustees for the pupils’ use in numbers satisfactory to the Principal. . . .”

“For the High School Upper School, any books may be used which have been recommended by the Principal and approved by resolution of the Board of School Trustees. . . .” [70].

The slightly greater freedom enjoyed by the Vocational Schools in respect to text-books is indicated by the following Regulation (64):

(1) The text-books for the general subjects shall be the same as those prescribed for the high schools, or others specifically approved in each case by the Minister.

(2) The text-books for the vocational subjects shall be those selected by the Principal and approved by the Minister.

The Problem of Teachers' Capacity for Freedom.

The policy of increasing teachers' responsibility for curriculum-making is frequently opposed on the grounds that the average teacher is not really capable of planning courses, and choosing subject-matter and text-books. We have many young and inexperienced teachers throughout the province who would be quite helpless, it is argued, if left to their own resources in those matters.

It must be pointed out that increased freedom for the teacher in the choice of subject-matter and text-books would not necessarily abrogate the function of the Department to make suggestions, and recommendations. Without actual prescription of material, help and guidance could be as extensive as was necessary, and adapted to the needs of the individual teacher. But there is an entire revolution in philosophy of education between the prescription of material to be covered and the suggestion of material available for use.

Again, while there are possibly some individuals who might be unable to measure up to these much more difficult requirements, Ontario has a standard for her high school teachers that is rather above the ordinary. The qualifications for high school assistants now demand an Arts course and a year of graduate professional training. Considering, then, the average excellence of our secondary school teachers, is a policy well advised that penalizes the better teachers because of the limitations of some that are not so good? There would seem to be less risk in erring on the other side.

But granting the high qualifications of our teachers, taken as a whole, it may be necessary to raise the standard even higher. The fact that higher qualifications in teachers are needed for pursuing our aims does not invalidate the claims of that aim.

One approach to the problem might be to stress other educational objectives in our high schools than

those stressed in the present curriculum. The memory test of the departmental examination system, discussed in Chapter V, is surely not the best instrument for selecting prospective teachers with the qualities of self-direction desired.

Again, the more stringent demands of a policy of self-direction might well result in sifting out the less competent teachers. The most highly qualified would adapt themselves most easily; the incapable might be expected to give up the struggle. Might not the demand for increased self-reliance, independence, initiative and responsibility in our teachers possibly attract more highly qualified people to the work? It is conceivable that such a policy would be almost as influential in some instances as salary increases, in improving the personnel and morale of the profession.

Professor W. H. Alexander of the University of Alberta, addressing the Conference of the National Council of Education at Winnipeg in 1919 made that suggestion:—

“Another essential factor in education I have not heard much said about is the freedom of the teachers. You talk about increasing the teachers’ salaries and all that kind of thing. Of course, that would be an inducement, but I want to tell you from my experience as a teacher the really great inducement would be to give the teacher more freedom.” [53].

Doubtless much more could be done in professional training colleges than is done at present to prepare teachers for original work. In the Ontario College of Education, English is the only course in which instruction is given in curriculum-making, possibly since that is the only field in which high school teachers are allowed to choose their own material. The course in Methods in English includes:—

“The place of literature in school courses, the principles followed in Ontario and elsewhere in arranging literature courses for schools; books suitable for intensive study in the various forms or grades of the schools; class treatment of such types of literature as the short poem, the long narrative

poem, the play, the short story, and the novel; examinations in literature; supplementary reading, its importance; selection of books; testing of reading. . . ."

"The principles to be followed in arranging a course in composition; work suited to the age and experience of the student." [54].

More attention would probably need to be given by teachers-in-training to an understanding of the psychology of high school boys and girls; to a study of their actual needs and present interests, as well as to the technique of the learning process and the subject matter of study.

But after the training school has done its best, a teacher's most fruitful training is probably gained through his actual experience in the field. Are we not then, by limiting teachers' responsibility, cutting off their opportunity for improvement in service? How can we wait until teachers are ready for this larger task, if they are only to be made ready by engaging in it? To put off starting is futile.

The results desired could not be accomplished in a day—perhaps not in a generation of teachers. Teachers brought up under a regime of dependence from elementary schools through to professional training course, cannot be reasonably expected to step out blithly into freedom. They would need to readjust themselves gradually to the new order. But surely most of them can be trusted to welcome the opportunity. "There may conceivably be localities of teachers unfit to be trusted with freedom," said Professor Robertson, "but even these should be entrusted with all the freedom that can be given them (and perhaps a little more), that so they may learn to use still more freedom." [55, 1921].

University Requirements.

The possibility of curriculum reconstruction with greater self-direction and diversity in the schools, and less prescription and uniformity would seem most of all to hang upon convincing the universities that the ends they seek through examin-

ations and rigidly prescribed entrance requirements can be better achieved by other means; that students can be better prepared and better selected for university courses by diversity and responsibility in school curriculum than by uniformity and prescription. In the last analysis the universities and secondary schools must always be at one in their aims. The preparation desired by the universities in their prospective students is surely less a matter of information than of capacity.

"We have evidence not only of ordinary good sense but of empirical results to show that a wide variety of formal content is not necessarily prerequisite to acceptable college work." [31, 139].

What is actually prerequisite is the kind of education making for citizenship, for character, and for abundant living, which is properly the aim of the secondary schools, but which the present university demands seriously thwart.

Decentralization of Curriculum.

If these considerations are accepted, the policy of decentralization of curriculum, started by the revision of 1922, must be continued with increasing momentum. This is the logical direction of advance if education is to be thought of, not in terms of a fixed content of knowledge, but of approved ideals, purposes, and habits of behavior. A curriculum that is the means of reconstructing students' experience toward continuous enrichment, will not be prescribed from above and in advance. It will fit the individual and local need, the individual and local capacity, the individual and local opportunity for expression in life activity. Respect for individuality is the touchstone of education for democracy. As Professor Dewey said, in an article on "Individuality, Equality, and Superiority," in the *New Republic* of December 13, 1922:—

"It may be that the word democracy has become so intimately associated with a particular social order, that of

general suffrage and elective officials, which does not work very satisfactorily, that it is impossible to recover its basic moral and ideal meaning. But the meaning remains whatever name is given it. It denotes faith in individuality, in uniquely distinctive qualities in each normal human being; faith in corresponding unique modes of activity that create new ends, with willing acceptance of the modification of the established order entailed by the release of individualized capacities."

Freeing the Department for Greater Usefulness.

If the Department of Education were liberated from the minutiae of detailed regulations, and from the burden of inspection to see that those regulations are carried out, it would be set free for its essential work. Professor J. T. Snell of MacDonald College, made that plea in an address to the Ontario Educational Association in 1921.

"It is quite true that a central organization such as a Provincial Department of Education, is an essential feature of a democratic system of public education. . . . The State owes it to itself to fix a minimum of educational requirement and to enforce the observance of that minimum upon all parents, schools, and local communities.

"Beyond the enforcement of this minimum and of uniformity in matters of accounting and reports, the central organization ought not to interfere with local autonomy except by way of advice." [55, 1921].

"The minimum educational requirement" that Ontario is willing to recognize is the maximum educational opportunity for every boy and girl. To achieve that maximum, a central authority must take responsibility for such measures as: enactment and enforcement of compulsory education laws; provision of allowances for families needing the earnings of adolescents; care for students requiring particular attention, such as sub-normal and super-normal children; supply of adequately trained teachers and their improvement in service through helpful supervision, summer schools, exchanges, sabbatic years, etc.; creation of attractive conditions of employment, such as satisfactory salary and pension schedules; publicity work to create public in-

telligence about education; equalization of the financial burden for the help of the poorer communities; distribution of professional information to encourage and assist local experimentation. Greater attention to these and other similar problems would be calculated to make our schools, teachers and local communities more capable of that initiative and responsibility necessary to meet the conditions of education as growth. Why cannot we keep, then, the advantages of the centralization which has become characteristic of Ontario, and by minimizing its disadvantages, make it more abundantly fruitful of the educational ends desired?

Summary.

The following general lines of policy seem to emerge inevitably from the educational theory presented in this study:—

1. A single system of schools with more comprehensive and purposeful curricula.
2. Methods of testing school work that will take account of wider educational outcomes than are dealt with by the departmental examinations.
3. The use of subject matter as means of meeting the present needs of the learners.
4. Definite efforts to develop greater capacities and inclination for self-direction on the part of teachers, students, schools, and local communities, resulting in less insistence upon uniformity and greater respect for individual differences. This last change would involve a policy of decentralization of curriculum.

These proposals are not altogether visionary, although they look rather far ahead. They start from where we now stand in Ontario. They seize upon tendencies already at work, and seek to further them. In so doing, it is believed, they may claim to be practical.

It would be foolish, however, to suppose that any one of these changes could be accomplished

over night. The most trustworthy progress is to be built by gradual stages upon past achievement. A policy most truly liberal is first intelligently conservative. To argue otherwise would be to deny the whole tenor of the philosophy here presented. It is by the "reconstruction of experience" that we go on to richer and fuller life. These objectives, then, must be considered directions of change. Although they are set forth as ends to be achieved, they must be sought by means of intermediate stages.

Yet all of them are presumably within reach in a not distant future. By the time they are reached in the limited fashion here defined, it is to be expected that the underlying educational principles embodied in the changes will have opened up many far-reaching aspects. They will still be directions of change, along which Ontario must find that her "ends are endless." For ends once realized will have become means to further ends in the pursuit of education as growth.

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